

HOME CINEMA

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Choice



Power ranger

Pioneer's SC-LX86 receiver rocks! p42

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- Speaker buying tips
- Soundbar roundup

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55in Philips

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KEF R Series 7.1 array delivers scale and slam

FEMME FATALE

Why *Resident Evil: Retribution* is a 3D knockout! See p98

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Stunning pro
install, p38

WELCOME

When *Star Wars* supremo George Lucas declared that
'sound is 50 per cent of the movie-going experience'
he was almost spot on. In my mind the audio side of
home cinema is actually more important.



There's no denying that a blockbuster movie on Blu-ray can
dazzle on a large TV or, better, a projector screen, but it's when
it's accompanied by surround sound that the magic really begins,
turning your viewing room into a *bona fide* movie den and making
popcorn a necessity. Explosions that previously sounded like two
bits of balsa wood coming together acquire stomach-churning
weight; bullet-fire becomes frighteningly real.

That's what home cinema is all about – and why this issue of
Home Cinema Choice is crammed with surround sound
goodness. We've got an exclusive look at KEF's stunning R Series
speakers, a roundup of the best-sounding Blu-rays and a
foolproof guide to upgrading your audio arsenal. Enjoy!

Mark Craven



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The UK's most experienced TV tester cut his teeth as an early HCC staffer



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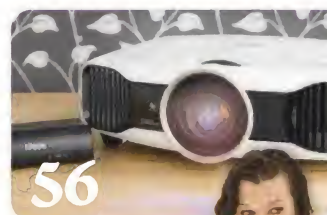
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hi-fi / hotspot

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BULLETIN

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AUDIOXPERTS New US company rewrites the soundbar rulebook **ISE 2013** How Europe's biggest pro-install tech show is shaping up **LOEWE** German marque joins the 55in TV brigade **NEWS X10** The hottest news stories in bite-size chunks **SKYFALL** Yet another James Bond Blu-ray for your collection **AND MORE!**

Bold and beautiful

LG 84LM960V → www.lg.com/uk



HORSE PLAY

Is Pixar's *Brave* a runaway success on Blu-ray? See p100

LG's flagship 84in LED TV, the 84LM960V, has now gone on sale in UK stores, targeting well-heeled AV enthusiasts with a spare £22,500. The Ultra HD (4K) set incorporates the brand's Resolution Upscaler Plus tech to buff up SD and HD sources to eight million pixels, and bundles five pairs of Passive 3D spex (and two Dual Play glasses) for three-dimensional fun. Bigscreen audio is delivered by a 2.2 speaker array.

HCC ONLINE...

Looking for breaking AV news, blogs, features, & reviews? For your daily fix visit us at www.homecinemachoice.com Follow us on Twitter @hccmag

On a Mission

Mission SX → www.mission.co.uk



Loudspeaker specialist Mission has unveiled a new range of seven models that it claims is its 'best-ever'. The SX series comprises a trio of floorstanders, two centre-channel enclosures and a pair of standmounts, enabling buyers to tailor a system to their requirements – and match it to one of Mission's MX subwoofers. Prices range from £700-per-pair for the smallest SX1s to £2,000-per-pair for the flagship SX5 floorstanders. Finishes include black, cherry or rosewood real-wood veneers and premium piano black and piano rosewood lacquers.

1,000 feet of HDMI



The days of limited HDMI runs appear to be coming to an end with the news

that RGB Communications has started distributing Celerity Technologies' new pre-terminated fibre optic cable with detachable HDMI connector. RGB claims that this fibre optic solution is capable of delivering 'exceptional picture and sound quality over lengths of up to 1,000ft'. The use of detachable HDMI connectors also means that the cable can be run through the smallest of holes for easy installation in any location.

www.rgbcomms.co.uk

Meridian AV upgrades



Meridian Audio has announced a series of performance upgrades for its

861 Reference Digital Surround Controller (pictured) and DSP7200 Digital Active Loudspeaker. The latest version of the 861 includes improved components and the ability to manage centre-channel height imaging in conjunction with the new DSP7200HC speaker. The DSP7200 Digital Active loudspeaker benefits from new DSP music modes and other tweaks.

Existing owners should contact their local dealer for more info about the upgrades. www.meridian-audio.com

Loewe goes larger



The 'world's most customisable Smart TV' just got a little bigger with the introduction

of a new 55in screen in Loewe's Connect ID line-up. Available with an optional integrated hard disk recorder, the Connect ID Smart TV boasts a whopping 2,160 different setup combinations, as well as 200Hz picture processing, two wide-bandwidth speakers and a pair of down-firing woofers for improved audio. Prices start at around £2,500 for the basic model, or £2,800 with DR+ integrated HD recording. www.loewe.tv

Reinventing the soundbar

AudioXperts claims its 4TV 'console' is the real solution to your needs

There's a new luxury AV brand in town and it wants to change the way you think about home cinema sound. AudioXperts, the brainchild of Eli Harary (formerly of both JBL and Boston Acoustics) is launching in the UK with an innovative TV sound system dubbed 4TV, and a novel slimline speaker range called Korner.

4TV is part soundbar, part pedestal: 'We call it an Audio Entertainment Console,' explains Harary. 'It does a great job of playing home theatre, but is also outstanding with music.' Two models are incoming: barely 6cm tall, they're made from aluminium and smoked glass and sport multiple speakers. The 200W 4TV 2112 is a stereo proposition, bolstered by Bluetooth wireless streaming with APTX noise reduction. The step-up 4TV 5122 adds a thin wireless subwoofer, surround sound



Eli Harary: 'The 4TV Audio Entertainment Console does a great job of playing home theatre and is outstanding with music'

processing and 500W power plant. Both units feature an Apple Airport Express port, allowing AirPlay to be added as required. Design and build quality are high.

AudioXperts' director of product design is Kieron Dunk, who has previous form with Denon, Marantz and Klipsch.

Neither comes with a remote, instead they learn commands from the TV handset. 'Our research indicated that people just didn't want another remote control in their house.'

If you want to manipulate other stuff in the settings, you do have to get up and do it on the unit.'

Harary told *HCC* that with as many as 70 per cent of viewers choosing not to wall mount their flatscreen TVs, his consoles would offer a practical new way to enjoy high-performance audio. Prices start from £2,000.

For those that aspire to full-blown 5.1, AudioXperts' Korner provides a neat alternative to traditional enclosures. The range comprises a 68cm tall floorstander, four of which snug into a room's corners, plus a 55in-wide centre. Two subwoofers are available, one packing a 100W amp and the other 500W. Korner are available in stainless steel, piano black or satin white – and are styled to almost disappear in your room.

All AudioXperts kit will also carry a five-year parts and labour warranty. 'If a product breaks during the first two years, you just get a new one. No quibbling,' promises Harary.



The 5.1 version of the 4TV ships with this thin wireless sub

PLAYLIST...

Team *HCC* spins up its disc picks of the month

Amazing Spider-Man (All-region BD)

It's not quite the 3D superhero spectacular we were promised, but this nifty comic book reboot still delivers plenty of top-notch AV action on Blu-ray

The Awakening (Region B BD)



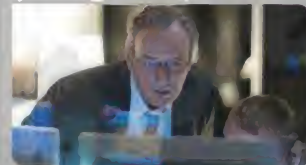
This handsome and chilly post-war ghost story is an ideal watch during these long, cold Winter nights

Werewolf: The Beast Among Us (All-region BD)



A surprisingly strong cast and well-crafted effects makes this direct-to-DVD horror flick worth hunting down

Margin Call (All-region BD)



Superior hi-def outing for this smart thriller set in the high-stakes world of the financial industry

WWE 13 (Xbox 360/PS3)



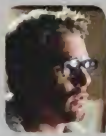
Part history lesson, part top-notch brawler, *WWE 13* lays the smack down on previous wrestling games



LOADING...

Team HCC's pick of the hottest BD and DVD news

House of hi-def horrors



The recent horror hit *Sinister* is looking to scare up a storm once again when it lands on Blu-ray and DVD in the UK on February 11. Touted as 'BMM meets *The Shining*', the film stars Ethan Hawke as a crime writer who moves into a house that was the scene of a gruesome murder. Things start to get really strange when he discovers some old home movies in the attic, all featuring the same mysterious figure...

Classic Who goes Blu



The first ever colour *Doctor Who* story, *Spearhead from Space*, is being primed for a BD release on 25

July. The only classic serial to ever be entirely shot on film, the story also saw the debut of Jon Pertwee as the Doctor and the evil Autons.

Eureka gains an Angel



The Blue Angel, the German film that launched the career of Marlene Dietrich, is joining Eureka's hi-def

Masters of Cinema line-up on January 28. The disc promises numerous extras as well as both German and English language versions of the movie.

ISE prepares for bumper Expo

Highlights of custom install show to include 'cyber-illusionist'...

The annual Integrated Systems Europe (ISE) technology show in Amsterdam kicks off at the end of January hoping to be the biggest one yet, despite the struggling global economy.

Held at the Amsterdam RAI, this year will see the custom install extravaganza take over an additional hall in the venue, following better than expected demand. 'This is not a decision we have taken lightly,' says Mike Blackman, ISE's Managing Director. 'However, the response from exhibitors to our 2012 show has been overwhelmingly positive and, in the end, we felt we had no option but to expand our footprint for 2013. We simply had to find some extra legroom from somewhere!'

Visitors to the three-day expo, now in its tenth year, can expect something particularly unusual – a keynote address from American 'cyber-illusionist' Marco Tempest. Dubbed 'Inventing The Impossible', Tempest's presentation will address 'the use of illusion as a creative tool' and how it can be used to bring 'seemingly impossible scenarios' to life in the AV world. Team HCC is not entirely sure what that means.

Other special events at ISE 2013 include the MegaPixel Summit, focusing on display solutions with greater than Full HD resolutions, and the Smart Building Conference, covering state-of-the-art automation and energy-management technologies.



Marco Tempest: The innovative Swiss-born multimedia magician's keynote addresses 'the use of illusion as a creative tool'

The gang's all here

On the show floor, ISE 2013 promises to continue where it left off – showcasing professional install technology from speakers and smart control to projectors, seating and more. Exhibitors among a total of more than 850 include the ubiquitous AV giants – Panasonic, Samsung, Sony and LG – as well as new arrivals such as Datasat, DVDO, Mozaex and Vivitek. Confirmed product launches include Genelec's new G series speakers and F series subwoofers, ultra-thin in-ceiling speakers from TruAudio, wireless automated blinds from intelligent home specialist Lutron and Crestron's new Integrated by Design home management solutions.

ISE 2013 runs from January 29 to January 31. Check out www.iseurope.org for more information.

Get ready for plenty of AV magic as ISE returns to the Amsterdam RAI



Acoustic Energy enters a new era

3-Series loudspeaker range mixes past technologies and futuristic design

Speaker specialist Acoustic Energy believes it has marked 'the beginning of a new era' with its new 3-Series range, designed to build on the company's engineering roots and professional studio heritage.

While there are plenty of innovations to be found, many of the technologies in the range hark back to AE's 25-year old AE1 monitor – most notably the use of spun aluminium cones, hard anodised on both sides for additional stiffness.

But, if the engineering is rooted in AE's past, the cabinet design is surprisingly modern. Each model features front slot-ports that reduce port turbulence and have been tuned for deeper bass than traditional

port tube loading. This also means that they can be placed closer to back walls, allowing greater freedom for room positioning. The larger models also utilise a rearward slope on the baffle that supposedly time aligns the drivers for greater coherence between HF and LF output.

The 3-Series lineup consists of the 301 stand-mount (£425 pr), the 305 floorstander (£1,000 pr), the 307 centre (£350) and the 308 subwoofer (£800).



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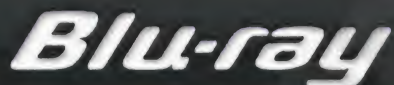
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DIARY

Our calendar ensures that you don't miss out...

→ JANUARY

11: American Mary

Dead Hooker in a Trunk creators The Sosoka Sisters are set to make an even bigger splash with this twisted horror flick that gets a limited UK cinema release today, before hitting BD and DVD on January 21. www.universalpictures.co.uk

13: Dredd 3D

The second cinematic outing for British comic book icon Judge Dredd hits Blu-ray and DVD in the UK. And based on everything we've seen and heard so far, it could easily become the AV enthusiast's 3D demo disc of choice. www.entertainmentfilms.co.uk

18: Django Unchained



Having tackled World War II, Tarantino turns his attention to the Wild West with this film about a slave-turned-bounty hunter who sets out to rescue his wife from a plantation owner. Track it down from today at UK cinemas. www.sonypictures.co.uk

25: Lincoln

Steven Spielberg's latest film finally makes it to UK cinemas, some two months after it opened in the US. Set towards the end of the Civil War, Spielberg casts Daniel Day-Lewis as the titular US president. www.fox.co.uk

29: ISE 2013

The RAI in Amsterdam opens its doors once again for this annual three-day trade show for the professional AV and electronic systems industry. And HCC's roving reporters will also be there to bring you all the biggest stories. www.iseurope.org

→ FEBRUARY



01: Bullet to the Head
48Hrs director Walter Hill is back behind the camera for this new action flick about

a hit man (Sylvester Stallone) who must join forces with a young cop. Catch it at UK cinemas. www.entertainmentone.co.uk

07: HCC #218

Your favourite home cinema magazine hits the stands today, packed with hardware tests, features, outspoken opinion and in-depth software reviews. www.homecinemachoice.com

TV and games shouldn't unite

Doctor Who producer warns telly execs not to bank on interactive media

Doctor Who showrunner Steven Moffat has poured cold water on the idea of closer interaction between filmmakers and the video games community at the Royal Television Society conference on convergence.

The BAFTA award-winning writer maintained that despite the integration that new twin-screen tablet/TV technology affords, the two mediums should never collide. 'I can't imagine two more different worlds than viewing and playing,' he told an audience of UK broadcast bigwigs.

Moffat was responding to Ed Vaizey, Minister for Culture, Communications and the Creative Industries, who had declared: 'There's huge mileage to be gained from having the industries of television and games working together. One of my ambitions as a minister is to try and unite these worlds.'

Moffat appeared unconvinced. 'We're talking about two different kinds of entertainment and it would reduce them both by making them the same,' he said.

Of course, the BBC is no stranger to convergence. It



Steven Moffat: 'TV and games are different kinds of entertainment and it would reduce them both by making them the same'

recently collected a BAFTA Cymru award for its fifth *Doctor Who* online adventure, *The Gunpowder Plot*, which features the main voice cast from the popular sci-fi series.

However, Moffat said that he considered the game a 'promotional tool' and not a harbinger of greater interaction between the two media. 'If I was in the middle of a television show and was suddenly told 'right, your turn, please control the main character', I'd be thinking that's something of a swizz,' he said. 'If you get to the end of a mystery, and then have to solve it, or get to the end of book and then have to solve the murder, you'd be hacked off.'

Game over?

Joining Moffat in the panel debate was Sefton Hill, co-founder and game director at Rocksteady, a studio which has won multiple awards for its pair of best-selling *Batman* games: *Arkham Asylum* and *Arkham City*.

Sefton pointed out that working across platforms is far from straightforward. 'Generally, it's difficult to base a game on a film when that story was only written to be 90 minutes or two hours long,' he said. 'By comparison, the main story for *Batman: Arkham City* was written to be 15 to 18 hours long – then on top of that you have a number of side stories, so that's around 30 hours worth of content.'



The Doctor investigates *The Gunpowder Plot*

Third-gen 5.1 audio



French loudspeaker manufacturer Cabasse is on something of a roll at the moment when it comes to 5.1 systems. Following hot on the heels of the recent

Alcyone 2 comes Eole 3. Priced around £1,000, this third-gen 5.1 system utilises a new version of Cabasse's Santorin 21 subwoofer (with a new digital amplifier) and employs modified crossover circuitry in the satellites for an improved soundstage. The price-tag also includes a pair of stands, 42m of speaker cable and a subwoofer line-level cable. Handy. www.cabasse.com/en

Multimedia jukebox



I.T. specialist Hage Ltd is using its network storage know-how to move into the home cinema arena with the MAV2 (Multi-Room Audio Video Vault). This UPnP server uses My Movies Disc Copier to automatically archive DVDs and Blu-rays and embed ID tagging, metadata and artwork on its RAID-configured storage. It even automatically converts an extra copy from BD or DVD to MP4 for use on Apple TV, iPad and other mobile devices. The MAV2 is available in up to 60TB in a full rack-mount version. www.mav2.co.uk

Living wirelessly



Audio Pro's wireless multiroom audio system has gained a new addition in the form of a single-box stereo loudspeaker. Priced £350, the LVI is the smallest enclosure in Audio Pro's Living range and comes in a choice of red, white or black leather finishes. The LVI utilises the company's 'Embracing Sound' technology to deliver stereo sound from a single box and, thanks to its slim and unobtrusive design, is described as 'the perfect speaker to either start or expand an existing multiroom system.' www.audioprodirect.co.uk

This month's top 10 news stories in handy, bite-sized chunks...



6 Remote control YouView
YouView has launched its first app (currently limited to iPhone, iPad and iPod touch). The app provides full seven-day listings for more than 70 digital TV and radio channels and allows customers to record their favourite programmes while on the move. 'This is just the first stage in our companion device strategy,' says CEO Richard Halton. 'We plan to extend the functionality of this app as part of our on-going development of the YouView proposition.'

1 Audio system gets upgrade
Loewe has updated its £1,250 SoundVision audio system with enhanced software and a new-look high-gloss white lacquer finish with chrome insets. The new software allows direct access to the MusicDetector music recognition system from the main menu on the touchscreen display, as well as providing upgrades to the FM radio mode and AUPEO! internet radio services.

7 Apple + Sharp = iTV?
The *Wall Street Journal* claims that two anonymous insiders in Asia believe that Apple is 'collaborating' with Sharp on the design of its debut TV. Hopefully we won't have to wait too much longer to find out the truth for ourselves.

2 End of an era
This month marks the crossover point where digital technology will overtake 35mm as the world's leading projection format in cinemas, according to the latest report from the IHS Screen Digest Cinema Intelligence Service. It also claims that by the end of 2013 the 35mm share will have declined to just 37 per cent of global cinema screens.

3 PS3 users love Netflix
Netflix CEO Reed Hastings claims that the PS3 is now the top device for connecting to the movie streaming service, stating: 'It even surpassed the PC in hours of Netflix enjoyment to become our number one platform overall.'

4 TV giants hit with record fine
Six firms including Panasonic, LG, Philips and Samsung have been hit with the biggest antitrust penalty in the history of the European Commission. The fine, which totals a whopping €1.47 billion, was imposed following a lengthy investigation into price-fixing in the TV industry between 1996 and 2006.

5 Sony's 4K films unwrapped
Last month we revealed that customers in the US who splash out \$25,000 on Sony's 84in 4K TV will get a server pre-loaded with 4K films to watch. The titles have now been confirmed as *The Amazing Spider-Man*, *Bad Teacher*, *Battle Los Angeles*, *The Bridge on the River Kwai*, *The Karate Kid* (2012), *The Other Guys*, *Salt*, *Taxi Driver*, *That's My Boy* and *Total Recall* (2012). A 'Sony Concierge' service will arrange to upgrade the content when new titles are made available.

News x10

8 Blu archive
Warner Bros. has rolled out its Warner Archive service onto Blu-ray. Designed as a way of making more obscure titles available on an on-demand basis, the BD service kicked off with *Gypsy* and *Death Trap*, with *The Hudsucker Proxy* and *Fearless* on the way soon. Sadly, the service cannot ship discs outside the US due to 'legal agreements'.

9 DTS added to UltraViolet
DTS has announced that a number of companies, including Digital Rapids, Rovi and Elemental Technologies, are supporting DTS Express for the creation of content in the UltraViolet Common File Format (CFF). DTS Express supports up to 7.1 channels and is optimised for digitally-delivered content.

10 The spy who loved BD
Not content with setting new UK box office records, 007 also proved to be a massive hit on Blu-ray last year. MGM and Fox's premium 23-disc *Bond 50* has been named the best-selling Blu-ray boxset of 2012, with worldwide sales totalling around \$50m to date. 'The Bond franchise is alive and stronger than ever' stated MGM's EVP, marketing, Michael Brown.



PREMIERE

What's happening in the world of TV and films...

Waterworld lives?

Kevin Costner's *Waterworld* may have flopped at the box office, but recent screenings of the film on Syfy in the US have done so well that the channel is now considering producing its own spin-off series!

Webb casts his web



Director Marc Webb is currently locked away by Sony, cooking up the sequel to *The Amazing Spider-Man*. Thankfully he's still been able to access Twitter, where he's confirmed that *Chronicle*'s Dane DeHann has been cast in the role of Spidey's best-friend-turned-enemy Harry Osborn.

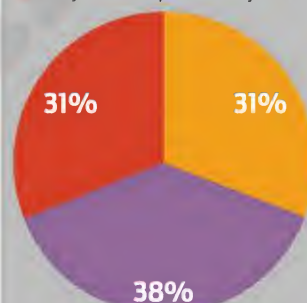
American vengeance

Chan-Wook Park appears to be the flavour of the month in Hollywood right now. Not only is Spike Lee putting the finishing touches to his remake of the Korean director's *Oldboy*, but *The Departed* writer William Monahan is currently working on a US version of Park's *Lady Vengeance* for Charlize Theron.

WE ASKED...

Do you use a tablet or smartphone to control any part of your home cinema system?

Yes No
Not yet – but I plan to very soon



Results from www.homecinemachoice.com
Go online for more polling action

A Blu to a kill

Skyfall → All-region BD/R2 DVD → www.fox.co.uk

James Bond's 50th anniversary has been celebrated in style, with 2012 heralding a Blu-ray boxset containing all of the official 007 films up to *Quantum of Solace*, and Daniel Craig's return to the iconic role with *Skyfall*, which has become the UK's highest grossing film ever.

While Fox is staying typically tight-lipped about the latter's Blu-ray release, *HCC*'s own secret agents have been on the case and reported back that it is currently hotly-tipped for a UK release on February 18.





The Heart and Soul of Home Cinema

Precision; a new luxury loudspeaker range from Tannoy, engineered to deliver movies precisely as the director intended. High power double-magnet drivers, mass-load cabinets and extremely low-loss crossovers effortlessly deliver breath-taking detail and explosive movie dynamics. Built around a brand new 6 inch (150 mm) version of Tannoy's world renowned Dual Concentric™ driver, two stunning floorstanding models, a compact stand-mount and matching centre channel speaker ensure there is a Precision multichannel system for every size room. Powerful, passionate and incredibly precise, Precision gets to the heart and soul of home cinema like no other speaker in its class.

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SEND TO: HOME CINEMA CHOICE SUBSCRIPTIONS, TOWER HOUSE, SOVEREIGN PARK, MARKET HARBOROUGH, LEICS LE16 9EF



K EF's newest speaker range borrows technology from the brand's Blade flagship. The result is a lineup truly worthy of its nickname 'Junior Reference'...



IN THE WORLD of high-end hi-fi, loudspeakers are routinely objects of reverence and desire, no more so than KEF's recent Blade. Styled like a shark's fin and packing exquisite technology, it's the kind of speaker to make grown men weep.

The thing is, though, that at the very top of the loudspeaker tree, the manufacturers tend only to offer them in stereo. There still exists a dichotomy between the two-channel audiophile and those who wish to have Hollywood (or Bollywood) in their living room. Sometimes the latter have to resort to purchasing the finest hi-fi speakers around and using them in their cinema – I once visited a system, part of a million-pound spend, that used Wilson WATT/Puppy cabinets in all directions at over £10,000 a channel.

And, of course, what all speaker companies know is that the true path to corporate survival and growth is to have a big seller. And to do that, it's often a smart idea to have your engineering department design a brilliant cost-no-object product and then work out which salient points of the new item can be made cheaper. With Bowers & Wilkins, it was the Nautilus speaker that led to its ➤

Adam Rayner has been writing about speakers for *HCC* since its very first issue, and he loves nothing better than cabinets almost as big as him



less costly models offering a tapering tube behind their tweeter domes. With KEF, the audio engineering unleashed in the Blade speaker is used to startling effect in its new R Series (reviewed here in a 7.1 array, with dipole speakers for the surround channels). With its refinements of already well-received technologies and, actually, a far-from-ludicrous price tag, it makes me feel that some other speaker brands are going to hate KEF.

For the R Series, I can tell you right now, is superb. Even if you don't opt for the lavish white finish...

In search of high fidelity

I get to hear a lot of speakers and, as all of the brands are fighting tooth-and-technology for your budget, there's always a value-for-sound issue. With some it is about just getting loud enough to scare the children. With others, it is about scale and richness and, most importantly, fidelity. The immediacy of the sound, how realistic it is, how well it paints a soundstage and in how many dimensions. And 7.1 surround can mean

a lot of potential channel transitions for the elements of a Blu-ray soundtrack.

Of course, it must play music as well as run movies, so in addition to checking out the 7.1 DTS-HD Master Audio mix on *The Adventures of Tintin* Blu-ray, I also gave this new-look KEF lineup a taste of some

'With its refined tech and far-from-ludicrous price tag, the R Series is the kind of speaker other brands will hate'

multichannel jazz. And it became immediately clear that the driver technology here is something special. KEF's Uni-Q has gone from good to awesome.

The Uni-Q, which is a feature of much of KEF's loudspeakers, including the Reference and Q Series, was always able to make an easily coherent soundstage, as the drivers for the high and lower frequencies are co-incident

— a single assembly of a tweeter within the heart of a midbass driver. Once a bit like a grown-up fillet steak compared to a coaxial car speaker's dodgy hamburger, what has happened to the tech now is akin to adding a few shavings of black truffle.

Tangerine dreams

'The Uni-Q here is very, very similar to the Uni-Q we developed for the Blade,' claims KEF's product guru Johan Coorg. The Tangerine waveguide — the shapely array of thin metal fins placed in front of the tweeter to direct energy out more evenly — will be familiar to KEF watchers, but the very shape of the midbass driver and especially its top surround suspension has been newly designed. Now called Z-Flex, it serves to act as a smooth transition from cone to suspension, to the shallow indentation that the Uni-Q sits in, so that the output of that wave-guided tweeter is now perfectly shallow-horn-loaded.

The Tangerine waveguide and Z-Flex rubbery top surround together serve to make Uni-Q sing as never before. That, and the



Assembling KEF's R Series bass driver

A Front trim

'The diameter of the trim ring accentuates a visual sophistication that belies the speaker's awesome power,' says the marketing literature. That's KEF speak for 'it looks smart'

B Aluminium/pulp hybrid cone

Lightweight yet stiff, these bass drivers range in size from 6.5in on the R300 bookshelf speaker to 9in on the R400b subwoofer. Two are used in the sub (each driven by a separate 250W amplifier) in an opposed force-cancelling arrangement — as is the case on KEF's Blade speaker.

C Voice coil

This large aluminium coil works in tandem with the KEF speaker's vented magnet assembly (D) to provide the cone-moving force



The R900s are the top-of-the-range R Series speaker

Blade-derived Single Apparent Source technology, where the potent voice-coiled bass drivers are placed symmetrically around the Uni-Q and as close as possible. This adds up to a coherency and ability to precisely locate elements of the soundstage where they are placed by a sound engineer.

The bass drivers in the R Series range, be they the 6.5in ones in the bookshelf R300s used here as rears, the 8in units in the R900 towers, or the 9in versions in the R400b subwoofer, are a treat, too. They're like normal drivers with Loki's Mask on; a speaker driver only cartoonishly more so. Massive voice coils, large motor magnets and a

'Tintin's soundstage hung across the screen, beyond the confines of the front three speakers'

multi-layer array of elements, including a very well-vented paper cone supporting a dished aluminium cover.

The centre speaker here is the R600c, which uses a similar but smaller version of the R900's driver arrangement. Dinkier versions of the centre, floorstander and bookshelf speakers are available should you want a slice of R Series for less money.

Dipolar technology

The R800ds dipoles turn out to have a neat crossover trick. Like a classic dipole, they fire along your walls and crossover between the high and mid frequencies at 2.5kHz. However, the manual also shows another crossover point of 300Hz for what looks like a simple two-way speaker. Below that frequency, the speaker radiates as a monopole. KEF call this 'two-and-a-half-way.' The reason for the change in radiating pattern is that a dipole struggles to be efficient at low frequencies unless it is very large. Says KEF: 'We flip to a monopole so that the R800ds can deliver some decent LF.'

Around the back of all except the 500W R400b subwoofer and R800ds you get two gold-plated sets of dual binding posts and, instead of an easy-to-lose jumper bar, there is another knurled knob. This is used to connect or detach the two sets from each other so you can bi-wire or bi-amplify the speakers if you wish. This seems to be a marketing fad, as I know few people who bother with two sets of speaker wires affixed to dual binding posts, even product managers demoing their own creations.

I should add now that my audition was conducted at KEF's UK headquarters, because I felt a room larger than my own

would be more suitable. A welcome benefit for me is that I didn't have to unbox all eight enclosures. But the report from the HCC photo studio is that it's not too much of a challenge, as long as you set aside time to attach the R900s' plinths...

Warner Music's *Legends of Jazz* Blu-ray is a handy platter to have around. Especially if you have a terrible crush on Jane Monheit. She has the voice of an angel and the recording is just sublime. With the KEF R Series, *You Can't Take That Away From Me* came across astonishingly detailed and real; the clarity of her voice, and the delicate edges of the percussion, rare and superb. On another track, John Pizzarelli's playing is fast but I could follow and hear his pitch-perfect voice as distinct from his instrument.

Comic capers

I am just the right age to adore Tintin. I watched the film as a true fan of the original books yet approved of the respect and love Steven Spielberg gave to Hergé's heritage. As such, I'm using it a lot as a demo disc – it helps if you like the movie that accompanies your 7.1 sonics. With the Arcam's volume dial given a hefty tweak, and KEF's demo room sofa moved back a touch, I got stuck in.

First, I found the clear hear-everything nature, evident with the jazz recording, continued. The high-frequency detailing of the R series is exquisite. There's scale, too; the soundstage hung across the screen, beyond the confines of the front three speakers. Characters' voices were amazingly clear and the bass-end a perfect blend of the speakers' drivers and the subwoofer. It helps, of course, that KEF's room has been acoustically treated. But I'd suggest that's something you should be looking at yourself if you're spending £6,500 on a speaker array.

As the movie opens there are different parts where we get an overlay of a ship-at-sea with creaking rigging. It sounded fabulous – you were there. Then comes a thunderstorm and the fear-inducing dynamism of this system was revealed, with the KEFs tangibly moving some air. Later, Tintin's dog Snowy chases a cat around the room. The soundtrack follows the overwrought 3D image and (minor spoiler alert...) a model ship gets knocked over. In the midst of all the crash, boom and tinkle – which the KEFs serve up every bit of – there is a distinct *crack* as the model's mast breaks. If you have this film, see if your system has this resolution. It may well not...

In another demo-worthy moment, a man (I won't reveal who) arrives at Tintin's door, only to get shot as he stands there. The impact parts your hair as you hear the bullet's path through the hallway and its woodwork, with perfect detail and almost painful edge at times.



The centre, bookshelves and front speakers can all be bi-wired/bi-amped

A very big piece of that visceral impact is the £1,000 R400b subwoofer. Its pair of 9in bass drivers are bolted back-to-back and their beautiful aluminium pistons are very fast indeed. There's snap and attack from its twin 250W amplifiers, alongside huge cone travel to really extend its depth. Swapping discs for Guy Ritchie's first *Sherlock Holmes* outing on Blu-ray, and the opening slo-mo fight sequence in foggy Victorian London, showed it to have immense scale. I'd easily recommend this as a standalone product



DIY vs Dealer?

Selecting and installing home cinema on a DIY basis may leave the system performing at way below its optimum level.

Choosing a home cinema system is a potential minefield that must be negotiated with great care or safely avoided by letting experts guide you. If you want to end up with a system that, as a minimum, meets your expectations in terms of picture and sound quality, reading magazine product reviews and choosing the recommendations, five-star favourites or best buys can only ever be part of the answer at best. Looking for the cheapest price and having a system delivered to your door, even with a 'knowledgeable' friend to help set it up, is a well-trodden path to disappointment.

There is a bewildering choice of components on the market today and also different ways in which components can be installed and connected together. Which sort of visual system do you go for? Projector and screen, or plasma, LCD or LED TV? 3D or non-3D?

Full 1080p capability is now the only sensible choice but the appropriate source components, such as a Blu-ray player, need to be part of the equation. The sound performance of a system is also hugely important, even more so if you will be listening to music, or music DVD's, through the same system. If so, you need an amp that approaches the performance of a decent 2-channel hi-fi amp, which is not that easy to find. Having an amp with the right inputs for the best connectivity is essential but you will also need to decide on a 5.1 or 7.1 speaker system, passive or active sub and, crucially, where they will be sited for the best results. In short, it's complicated and very fertile ground for getting it wrong.

Achieving potential

To select a system, you could choose a collection of 'Best Buy' components in the hope that they will be a great combination. Maybe, but probably not. You could buy a pre-packaged all-in-one

system from one manufacturer. This is almost certainly not the best route either, as you will miss out on enormous potential. From informal surveys conducted, it appears highly likely that the majority of home cinema systems selected and installed on a DIY basis (that is without professional input) are performing at way below their optimum level. To compound matters, most are also ill-matched to the room in which they are installed and are, in reality, the wrong system. Without considerable knowledge or experience, high quality home cinema is not a suitable DIY activity. Our aim must be to buy a home cinema system that will provide an excellent picture quality plus an audio delivery that will match, or even better, the commercial cinema experience. It must be exciting, reliable and deliver true value for money.

“ Our aim must be to buy a home cinema system that will provide an excellent picture quality, plus an audio delivery that will match, or even better, the commercial cinema experience. ”





What and Where to buy

To ensure a home cinema system is right for you, where do you start? Here's an important tip ... don't start with WHAT, start with WHERE. There's only one way to give yourself the best chance of getting it right first time, and that's through a specialist AV dealer. It's possible you have preconceived ideas that put you off visiting one. Although you would welcome the advice and guidance, you don't want to be technical jargon. You don't want to be talked down to. Your friend has said they only sell expensive gear and they're not interested if you don't have a big budget. They're expensive. These are just myths.

Most specialist AV dealers are running their business because, above all, home cinema is their hobby. They spend a large portion of their time comparing systems to get the best possible results. They know the component combinations which don't gel together and, conversely, they know the combinations which give the best performance within a given price range. Very importantly, they know how to get a system working to its optimum. But they all also know the system must suit you.

Buying or being sold to?

There are dealers around, web based or otherwise, who will sell you anything you are willing to pay for. They may be a bit cheaper but that's all they offer. Now there's a carefully selected group of long-established specialist dealers who are totally committed to putting the customer first. Their idea of 'selling' is to discuss your requirements, offer their advice, give you the best options, then play the systems for you and allow you to be the judge. You'll probably be surprised and, almost certainly, relieved to discover how easy it is to see and hear the differences between components and between systems. You'll be able to make a clear and informed decision about what to buy.

The story doesn't end there. These shops won't abandon you once you've put your hand in your pocket. They won't leave you to set up the system you've selected as best you can. They'll install it in your home, make sure it performs to its best, and ensure you're entirely happy with the way it works. Why? Because a high proportion of these dealers' custom comes through people who have bought from them before, either directly or by recommendation. It's vital to them to get it right for you.

Getting the best deal

Unless you've got money to burn, you'll be living with your new system for years. Most of these dealers offer much longer equipment guarantees than provided by the manufacturer, a very worthwhile benefit, but it also makes it in the dealer's interest

to ensure high build quality and reliability. Maybe you could save a few pounds by buying piecemeal but you'll lose out on the overall package. As far as the dealers are concerned, they believe that taking care of their customers properly is a far better way of doing business than just handing over boxes.

The Dealers listed below have been selected because they are known to do an excellent job in guiding customers towards home cinema systems that will provide years of superlative performance and total satisfaction.

Our top 20 AV shops in the country

SOUTH

Chelmsford

RAYLEIGH HI-FI SOUND & VISION
216 Moulsham Street. 01245 265245
www.rayleighhifi.co.uk

Kingston-upon-Thames

INFIDELITY
9 High Street, Hampton Wick.
020 8943 3530
www.infidelity.co.uk

Maidenhead

AUDIO VENUE
36 Queen Street. 01628 633995
www.audiovenue.com

Norwich

MARTINS HI-FI
85-91 Ber Street. 01603 627134
www.martinshifi.co.uk

Rayleigh, Essex

RAYLEIGH HI-FI SOUND & VISION
44a High Street. 01268 779762
CUSTOM INSTALL DEPT.
01268 776932
www.rayleighhifi.co.uk

Southend-on-Sea

RAYLEIGH HI-FI SOUND & VISION
132/4 London Road. 01702 435255
www.rayleighhifi.co.uk

Tunbridge Wells

KENT HOME CINEMA
69 London Road, Southborough.
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60 Durham Road. 020 8946 1528
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MIDLANDS

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FRANK HARVEY HI-FI EXCELLENCE
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CASTLE SOUND & VISION
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01904 627108
www.soundorg.co.uk



The majority of the above dealers are members of one or both of the major trade organisations, BADA or CEDIA.



'Surround sound
speakers elevate
a mere bigscreen TV
to a genuine home
cinema experience'



How to choose your speakers

Team HCC outlines what you need to consider before unleashing your credit card on a new set of noise-makers...

A **SURROUND SOUND** speaker system is what elevates a mere bigscreen TV/projector into a genuine home cinema experience. Without it, your Blu-rays and HD games lack the punch and power they're designed to have. Yet while the rest of the AV world – particularly televisions – moves on at a frenetic pace, adding new technologies every year, speakers and subwoofers change little. As such, you're unlikely to feel compelled to update your surround system very often. It's therefore important that when you do buy speakers, you get the right setup to match your requirements...

BIG, SMALL OR IN-WALL?

The first thing to decide is what sort of speaker array you want in terms of size and installation. This will most likely be dependent on the room you will be using them in, and the size of your wallet.

If you're building a dedicated cinema from scratch – by converting a garage or attic, for instance – then you might want to consider in-wall speakers. The benefits here are numerous. Firstly, you can eliminate cable-clutter by running cables through walls rather than around the skirting board or under a carpet. Secondly, your room will look more like a traditional cinema when it's finished, with no cabinets spoiling its clean lines. And, perhaps most importantly, if used in conjunction with an acoustically-transparent projector screen you can achieve the Holy Grail of home cinema – a centre-channel speaker that

KEEPING 'EM RIGID

Spiking your cabinets can make a difference



Using spikes to ground your floorstanders is a smart idea, particularly if they're on a carpet. As Isaac Newton discovered, every action has an equal and opposite reaction – meaning your speaker cabinet wants to vibrate back and forth with exactly the same energy as its driver cone, which can have a negative effect on low-end frequency response. Carpet-piercing spikes keep the speaker cabinet itself as fixed as possible. They're easily adjusted to take up variations in your floor and get the speaker level, too.

emanates audio from the middle of the image, as opposed to above or below it. (You can achieve this with other speaker types, too, but you'll need room behind the screen to house them).

It's often assumed that in-wall speakers are expensive, but that's not the case. It's the time and money spent constructing the false walls that is more of an issue. For instance, KEF's popular Ci range of in-wall speakers includes models like the Uni-Q Ci160 for as little as £160 per pop, while a Velodyne in-wall SC600IW subwoofer sells for around £500 – although you will need a power amp to drive it. And remember that replacing in-wall speakers can involve another bout of DIY work.

If you have a decent-sized space and love looking at your kit, but aren't keen on constructing false walls, then a traditional surround setup using floorstanders for the front left and right channels and standmount/bookshelf speakers for the surrounds is the sensible option if you can afford it. These bigger cabinets typically offer larger drivers that can shift more air and provide a greater full-range performance, so come in handy for stereo music playback, too. The drawbacks, though, are the often increased cost over smaller sub/sat packages and finding the space to accommodate them. The left- and right-channel floorstanders may look lovely flanking your TV, but a large centre speaker and bookshelf surrounds can pose problems. Check you have space before you buy!

The other option for speakers is a smallscale sub/sat package. If your

Whatever style room you have, there's a speaker setup out there that will match it



space and budget is limited, these are the most appealing solution. Even those with big pockets, but who may be averse to having their room dominated by AV gear, are catered for by high-end packages from the likes of SpeakerCraft (Roots) and Monitor Audio (Apex). Don't be fooled into thinking that a set of diminutive cabinets will deliver a weak audio performance – the main limitation is one of scale, rather than sonic quality, so in a smallish room they're more than adequate.



A 5.1 setup using floorstanding front speakers and standmount surrounds

5.1 OR MORE?

The most popular form of home cinema sound is a 5.1 array, with front left/centre/right speakers, two surrounds and a subwoofer. If you're serious about movies, this is the bare minimum, and the minimum offered in terms of channels from home cinema AV receivers. However, if your AVR provides more channels of amplification (most likely seven, but maybe nine) you should give serious consideration to adding more speakers. After all, if you're not using those extra two channels for a separate stereo audio zone then they're being wasted.

This isn't just a case of adding more cabinets for the hell of it – the film industry itself is moving forward in terms of surround sound. Movies are increasingly being released theatrically with 7.1 (or bigger) mixes. Many Blu-ray discs offer discrete 7.1, using extra rear speakers to provide a more enveloping soundstage. We talk often of getting 'what the director intended', usually in relation to picture quality – but it applies to audio, too.

There are alternatives to rear surround speakers that also make use of your AVR's power, of course. Dolby Pro-Logic IIz, Audyssey DSX and DTS Neo:X post-processing modes offer matrixed front height and front width options. While you're no longer sticking to what's on the disc and creating a different sound experience, the effect of these modes, particularly height speakers, can be very impressive. HCC's Richard Stevenson is a big convert – see p122 for more.

The problem with adding more speakers, be it a centre-rear for 6.1 or a full 11.1 array, is, of course, installing them and affording them. But if you can get around the former, the cost needn't be too high. You only need to use the same cabinets employed for the surrounds (for a good tonal match) – often the least expensive part of your system. And, because speaker product lines are continued for years, rather than months, upgrading from 5.1 to a bigger array at a later date shouldn't be too tricky.

IS ONE SUBWOOFER ENOUGH?

First things first – you need at least one subwoofer. Even if you have large floorstanders toting sizable bass drivers, these won't be up to the job of producing serious low-end lunacy. Your AVR has an LFE output – use it!

Is one subwoofer enough, though? Generally speaking, yes. Because our ears struggle to pick up the directional nature of low frequencies, it means

you can use a single sub in your room and still ensure all the seating positions are getting a good dollop of bass. However, adding another woofer, or even more, can improve bass performance, not only by increasing output but by smoothing out room-induced issues – using more than one sub can help minimise standing waves and nodes, or move them to areas of your room further away from your listening position. LFE is hard to control,

though, and it's a matter of trial and error. Running two subs can even double problems like room boom and suck-outs. We've experimented with various setups and found that it's easier to get one woofer sounding right than two or more. So, if you are going bigger on bass, make sure you have flexibility in your room on where you place the additional sub and be prepared for trial and error testing.

DIRECT OR DIPOLE/BIPOLE?

Not all surround speakers are created equal, and a decision you may have to make is whether to go for direct-radiating cabinets for your surround channels, or dipolar or bipolar models.

First, the basics. Dipolar and bipolar speakers feature drivers on more than one side of the cabinet, instead of simply on the front baffle (as you get on a direct-radiating or 'monopole' speaker). With a dipolar cabinet, the drivers operate out of phase, while bipoles' drivers operate in phase.

Dipole and bipole speakers can potentially reduce resonant room nodes at low frequencies and generate a more dispersed soundfield that is good for rear effects. In this position much of the output is fired backwards and bounces off the rear wall before getting to the listener, giving a more natural ambience than a direct radiating speaker. Neither configuration, dipole or bipole, is necessarily better than the other and their subtle performance differences will depend largely on positioning and room configuration. On the downside, both designs are less sensitive than traditional 'monopole' loudspeakers so require more power to reach the same volume. Dipoles and bipoles are well worth

Dipole speakers provide wider dispersion of HF effects



NO PLACE LIKE OHM

Matching speakers to your AV receiver



A detailed discussion of speaker impedance could fill an entire magazine, so we'll stick to the basics. Essentially, to stay safe, you need to make sure that the impedance rating of your speakers – expressed in ohms – matches or is greater than the rating that your AV receiver is able to drive. So, if your speakers have a nominal (because it varies depending on frequency) impedance of six ohms, then your AVR should be capable of driving speakers of six ohms or lower. In practice most speakers are between six ohms and eight ohms and most AVRs can handle these with ease. If you have the rarer four ohm speakers, you may need to hunt around. Problems arise when using an unsuited AVR to drive very low impedance speakers as it can cause your amp to overdrive and shut down or even overheat. If in doubt, check with your kit manufacturer before cranking up the volume...

a try, particularly in smaller rooms where direct speakers will be firing into your ears like headphones.

CABLE CONUNDRUMS

Speakers rely on cabling to work, and the available options cover all manner of budgets. Our advice is not to get stressed when choosing your interconnects – trying to digest every single piece of construction info on cabling is a sure-fire way to drive you nuts. A couple of things to consider, though: where possible, keep speaker cabling to equal lengths – the longer the cable the greater its resistance, inductance and capacitance and your amp will see quite a different impedance load with a longer cable than a shorter one. As most amps are sensitive to this load, keeping speaker cables the same length ensures an equal performance on each channel. Secondly, investing in a branded cable is likely to yield a better result than its generic counterpart. Dedicated brands spend time testing materials and geometry to get the best performance. However, budgets can be blown to bits if you're feeding seven speakers with long runs of high-quality cable. Think about what you can afford – don't skimp on your speakers in favour of cabling!

And with both the above points, you need to consider what sort of person you are. If the idea of conducting extensive listening tests and fiddling about behind your AVR appeals to you, by all means do it – you should be rewarded with a performance upgrade. On the other hand, you can keep life simple using random lengths of bargain cable from Maplin and be none-the-wiser. If it sounds good enough for you, well, it's good enough.

PLACEMENT

So, you've bought your speakers, wired them up and are almost ready to rumble. Now you just need to

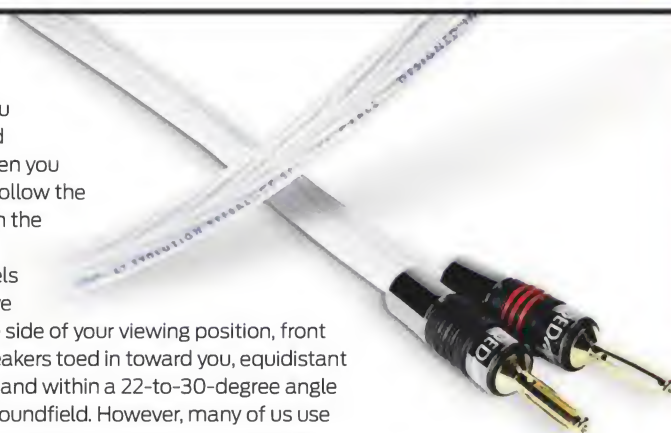
place them. If you have a dedicated cinema room, then you should strive to follow the suggestions from the likes of Dolby – surround channels a foot or so above ear-height to the side of your viewing position, front left and right speakers toed in toward you, equidistant from the display and within a 22-to-30-degree angle – for the truest soundfield. However, many of us use a room where this can't be achieved. Everything from windows and bookshelves to furniture or doorways can muddle it up. If that's the case, don't get too depressed. You can use the auto-calibration feature on your AVR to adjust the sound accordingly and experiment with moving speakers and items of furniture a few inches if you're not getting a soundstage to your liking. And remember, even if the end result isn't perfect, it's still far better than what you'll get from your TV's speakers.

GET A DEMO!

You wouldn't buy a car without taking it for a test drive, and the same applies with speakers. We wouldn't recommend investing in a surround sound system, which ideally will be used for years to come, without hearing it first, no matter what your friends – or HCC's own reviewers – may have told you.

A good AV dealer should have no problem setting up a demo for you, usually with the AVR of your choice. Take along your favourite movie and music platters and see how they sound. Is the subwoofer up to scratch or would a model from a dedicated bass specialist be a better option? Are they too bright or too warm? Only your ears know the answer... ■

Decent-quality speaker cable has its benefits – but costs can quickly mount up when you're running five or more speakers



FROM DESIGN TO DELIVERY – A SPEAKER IS BORN

Acoustic Energy's brand manager James Luce reveals the trials and tribulations behind a new product arrival

'The design process actually starts with retailers, as they are closest to what customers want to buy. They often request products in certain sizes, categories and prices and the design team then works to create a product to meet these demands. With these parameters in place the first step is the outline design, based on the theoretically perfect internal cabinet volume for the chosen driver configuration. Sketch-board ideas are fleshed out and the best designs are transferred to CAD and rendered into 3D models. On major product lines, retailers and distributors may be brought in at this stage to voice their opinions on the look, shape and finishes of the new speaker. 'Once the design is agreed, cabinets are made from raw

materials such as medium- and high-density fibreboards, rubber sandwich materials or even metal alloys, depending on AE model. Drivers are developed and tuned in-house and a manufacturing

partner established to mass produce the unit to spec. With the cabinet and the driver's physical properties known, a theoretically perfect crossover is developed through electrical modelling and several samples are hand-built in time for the arrival of the drivers.

'The fun begins as the first prototype is tested for its basic frequency response, impedance and dispersion characteristics. Modifications will be made to the cabinet, driver and crossover until a 'workable' sample is achieved. From here the process of

fine-tuning begins; tweaking the bracing and porting, changing components on the crossover, trimming baffles, and more, to get the best sound. This is done by measurement initially and then by rounds of auditioning. At AE that involves the opinions of everyone from the MD down, and it gets quite heated! Assuming we agree on a final sound, the cabinet, crossover and driver specifications are then ordered from suppliers in prototype form. These are fully-finished units but have often been made by hand. We assemble another prototype and again measure and audition it. Manufacturing processes and even cabinet veneering can have an effect on sound so there are often tweaks and changes at this stage.

'Once everyone in the team is happy with the look and sound of the speaker, production orders are sent to our suppliers all over the world while the marketing team develops the instruction manuals and packaging artwork. With a bit of luck, all of the various parts come together in time for the launch!'





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On a mission to find the platters that both test your system's mettle and provide a treat for your ears, **Team HCC** rounds up its favourite multichannel mixes – be they sci-fi extravaganzas, raucous 'toons or old-school classics

MUSICALLY MINDED

Multichannel discs you can't afford to miss

The Beatles Love

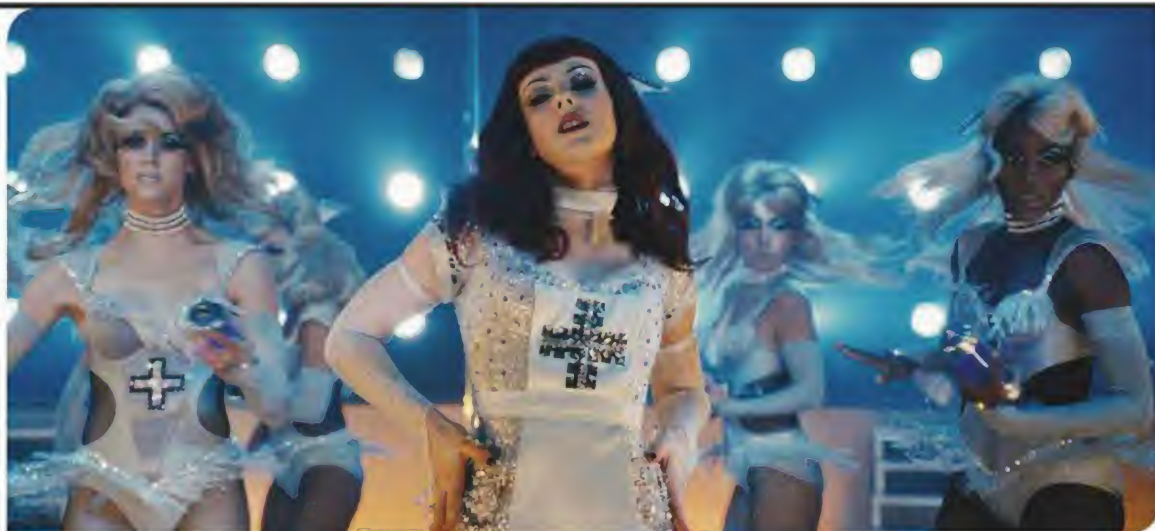


Remixed for the Cirque Du Soleil show, this is an exquisite example of five-channel rock. Released in 96kHz/24-bit DVD-A format, it also comes with a DVD-compatible DD5.1 layer. Fab!

Steve Stevens: Flamenco A Go-Go



This DTS Music Experience disc is a showcase of surround sound; rich with Latin rhythms, an infectious beat and wild sound effects that gel into a massive multichannel musical masterpiece.



SUCKER PUNCH: EXTENDED CUT

Warner Home Video - All-region Blu-ray

Director Zack Snyder had already treated us to a triple-bill of superior flicks (*Dawn of the Dead*, *300* and *Watchmen*) when he ushered in this surreal action thriller in 2011, and while it was a relative box office failure, its surround sound mix is reason enough to grab it on Blu-ray.

Warner Home Video's disc packs an intricate DTS-HD MA 5.1 track that dovetails perfectly with

the outlandish onscreen action. As Snyder frequently moves his camera around in head-spinning 360-degree turns, or orchestrates his battle sequences in slo-mo, the audio follows suit. Effects are placed in every corner of the soundstage – from scraping samurai swords to whirling helicopter blades – and the LFE channel is in near constant use to add ominous heft to everything from footsteps to a rumbling train. Add in the guitar-heavy, pop-influenced soundtrack and you have an outrageous audio experience that's hard to beat.



STAR WARS: THE COMPLETE SAGA

20th Century Fox - All-region Blu-ray

Back in the early 1980s George Lucas's sci-fi spectacular was a mainstay of every AV fan's VHS or Betamax collection. Skip forward to the present day and it's much the same, only there are now six *Star Wars* films and they can all be enjoyed with DTS-HD MA 6.1 tracks in this impressive boxset.

We all knew what to expect from the prequels, and from *The Phantom Menace*'s Pod Race to *Revenge of the Sith*'s climactic lightsaber duel they don't let fans down with the scale and depth of their sonic delivery. However, it's the original trilogy that provides some of the biggest acoustic thrills. Here, the team at Skywalker Sound went back to the original audio elements and recreated the tracks from the ground up. The results are a revelation – sympathetic to the original material, while simultaneously bringing them into the modern age with dynamic surround effects and phenomenal bass response. The Dark Side has never sounded so good.

BATTLESHIP

Universal Pictures - All-region Blu-ray



When you're making a film based upon a high-concept board game and casting pop warbler Rhianna in a lead role you need something special to appeal to discerning home cinema owners. Thankfully, Universal's *Battleship* packs an awe-inspiring DTS-HD MA mix that will have you forgetting about the ridiculous plot in no time at all.

If forced to sum it up in one word we'd probably plump for 'loud' – this is a brainless movie with explosions and low-frequency slams where the narrative should be, but it's all presented with such relish, dynamism and expertise that we gave it our Audio Quality of the Year award in 2012. The use of the rear channels, in particular, is astonishing.



THE GREY

Entertainment in Video - Region B Blu-ray

Joe Carnahan returned to the form shown in his debut movie *Narc* with this haunting survival thriller starring Liam Neeson. And what it may lack in genuine man-punching-wolf action (as the trailer may have led you to believe), it makes up for with some expertly crafted sonics.

Carnahan is smart enough to keep his CGI beasts at bay for large chunks of the movie, instead signalling their presence via skin-crawling offscreen howls – when these cut through the otherwise silent forest locations, all around the DTS-HD MA 5.1 soundfield, it'll set your pulse racing that little bit faster.

And then there's the film's plane crash sequence – accomplished filmmaking packed with tiny details, backed up by sterling sound design. Carnahan also shows that the complete absence of noise can be just as effective as a storming subwoofer throb to jolt an audience.



DRIVE

Icon Home Entertainment - Region B Blu-ray

Great sound design isn't just about the amount of room-rattling audio bombast that can be unleashed. There are also those mixes that dazzle through the lightness of their touch, the depth of their tonal range and their skillful atmospherics. Director Nicolas Winding Refn's acclaimed 2011 thriller *Drive* is a case in point.

While the setup may promise plenty of high-octane action (a Hollywood stunt driver doubles as a getaway driver), it's actually a much more low-key movie, but one that still makes a remarkable impression with its DTS-HD MA 5.1 mix. And, thanks to its taciturn protagonist, *Drive* regularly relies on the ambience and music in the track to drive the narrative forward. From the pure musicality of the opening electronic beats of Kavinsky's *Nightcall* over the main titles, to the seemingly ever-present tension-building rumble of bass, this is a perfect cohesive whole.



JAWS

Universal Pictures - All-region Blu-ray

Forget the big rubber monster – John Williams' iconic score is the real source of the scares in Steven Spielberg's 1975 seminal Summer blockbuster. The deceptively simple shark theme is one of the most recognisable pieces of music in film history, now intrinsically linked to the idea of approaching danger.

The tune resounded around the heads of most cinephiles when it was announced that *Jaws* would be getting a DTS-HD MA 7.1-channel remix for the film's belated Blu-ray release, but anyone worried that the new multichannel soundtrack would spoil the movie's impact can rest easy. This is a very smart and subtle piece of re-engineering; one that opts to expand the soundfield and clean up the existing elements rather than reinvent the wheel. Crowd scenes now have an immersive feeling, ambient surround effects feel natural and (best of all) the score positively bursts from your speakers.



AKIRA

Manga Entertainment - Region B Blu-ray

This is a platter that you simply have to own, if only to see if you can hear any difference between its 'hypersonic' audio mix and every other disc in your collection.

Manga's Blu-ray release of the famed 1980s Japanese animation offers two soundtrack options – English TrueHD 5.1 and Japanese TrueHD 5.1. Stick to the latter, as this was recorded at 192kHz/24-bit, as per the wishes of madcap audio scientist and score composer Tsutomu Ohashi (credited under his pseudonym Shoji Yamashiro). Ohashi's claim is that hypersonic cues in the mix, up to 100Hz and beyond human hearing, still affect your brain – if your playback gear is of sufficient quality, you should apparently feel the sound to be 'more beautiful, pleasurable and impressive,' and notice an improvement in picture quality. Whether or not you buy into that notion, there's no doubting the clarity and dynamism Manga's disc brings to this vintage soundtrack.



CRANK 2: HIGH VOLTAGE

Lionsgate - Region B Blu-ray

Following the success of *Crank*, writer/director duo Neveldine/Taylor surprised some viewers by making its 2009 sequel even more visually lo-fi than the original. But this B-movie sensibility doesn't extend to the audio mix.

Knowing that a key part of the Jason Statham franchise is immersing the audience as much as possible in Chev Chelios' hyper-aware, frenetic state of mind, the soundtrack here is a constant barrage of audio embellishments, from bizarre electrical

effects – our anti-hero is battery-powered! – and rapid-fire bursts of music, all brought forth by a crisp DTS-HD 7.1 mix. That the foul-mouthed dialogue manages to remain intact above the mayhem is all the more remarkable.

Those looking for a standout sequence should head to the power station fight. It builds from its eerie beginnings – the gentle hum of the generators and squawking birds – to an LFE-heavy slo-motion Godzilla-style rumble, replete with swirling synths, sparking cables and what sound like air-raid sirens. In fact, we reckon the kitchen sink may be in there too. Deliciously deranged.



KUNG FU PANDA 2

Paramount Home Entertainment
- All-region Blu-ray

Dynamic. Exhilarating. Potent. None of these are words you would traditionally associate with a panda. But when was the last time you met a panda who was also a master of kung fu?

DreamWorks' hit animated sequel benefits immensely from the involvement of supervising sound editor Ethan Van der Ryn. Building on the knowledge gleaned from working on live-action blockbusters like *Saving Private Ryan* and *The Lord of the Rings* trilogy, Van der Ryn definitely brings his A-game to crafting what he calls 'the film's sonic tapestry'.

Tapping into the musical and rhythmic tempo at the heart of the martial arts genre, *Kung Fu Panda 2*'s mix is a riot of surprising sound effects and cues that continually takes you unawares and puts a smile on your face (a prime example being Boss Wolf's attack on the Artisan Village). And the BD's expansive Dolby TrueHD 7.1 mix recreates it absolutely flawlessly in the comfort of your own home. A kids' film with grown-up sound.



HELLBOY II: THE GOLDEN ARMY - 2-DISC SPECIAL EDITION

Universal Pictures - All-region Blu-ray

Big, stomach-churning bass is the order of the day in Guillermo del Toro's action-packed comic book sequel. What else would you expect from a film where the hero is a beer-swilling demon armed with an oversized revolver and a giant stone hand?

DTS-HD Master Audio 7.1 soundtracks don't come much more aggressive and immersive than this.

Indeed, Hellboy's final showdown with the titular Golden Army remains one of the most thrilling surround sound experiences you'll ever hear. Each speaker in your setup explodes into action as 'Big Red' takes on the clockwork army, creating a convincing 360-degree aural landscape populated by smooth panning effects and massive amounts of LFE.

Hellboy II snagged the coveted 'Disc of the Year' gong at the 2009 HCC Awards. And it was the audio wot won it.



FLIGHT OF THE PHOENIX

20th Century Fox - Region B Blu-ray

A long-standing favourite among home cinema fans, this 2004 remake flies into our list by virtue of one solitary scene – the plane crash towards the end of the first act. Astonishing on DVD and even better in lossless DTS-HD MA 5.1, this lengthy sequence features some of the most precisely-engineered sound design around (and not matched anywhere else in the movie).

While the crash in *The Grey* (see p32) stays within the confines of the plane, here we see the action from all angles, letting the post-production team create a soundfield of immense scale and movement as the camera pans around. The Gobi desert sandstorm whips through the mix, while every tear of metal and clank and whine of engine is painfully loud. All the while, the plane's propellers are given constant, room-shaking presence in the LFE channel. Is this what an actual plane crash sounds like? We'll be glad if we never find out.



THE DARK KNIGHT

Warner Home Video - All-region Blu-ray

It's hardly surprising that superhero flicks are a terrific source of phenomenal Blu-ray soundtracks. But it is perhaps a little bit of a shock that one of the very best still belongs to that most human of superheroes: Batman.

Bruce Wayne's vigilante alter-ego covers up his lack of brute strength with an array of fantastic gadgets, and this disc's Dolby TrueHD 5.1 mix makes the most of them as it sets about creating a soundfield every bit as epic in scale as the film's IMAX vistas. Demo sequences don't come any better than the thunderous roar of bass, crunching metal and brittle shards of glass as the Caped Crusader rides into action on his Batpod and sets about flipping over a truck commandeered by the Joker. It's a scene we've watched over and over again and never tire of.

Also marking this mix out for greatness is the superb balance evident throughout – each element is perfectly weighted and effortlessly combined into a truly superheroic audio experience.



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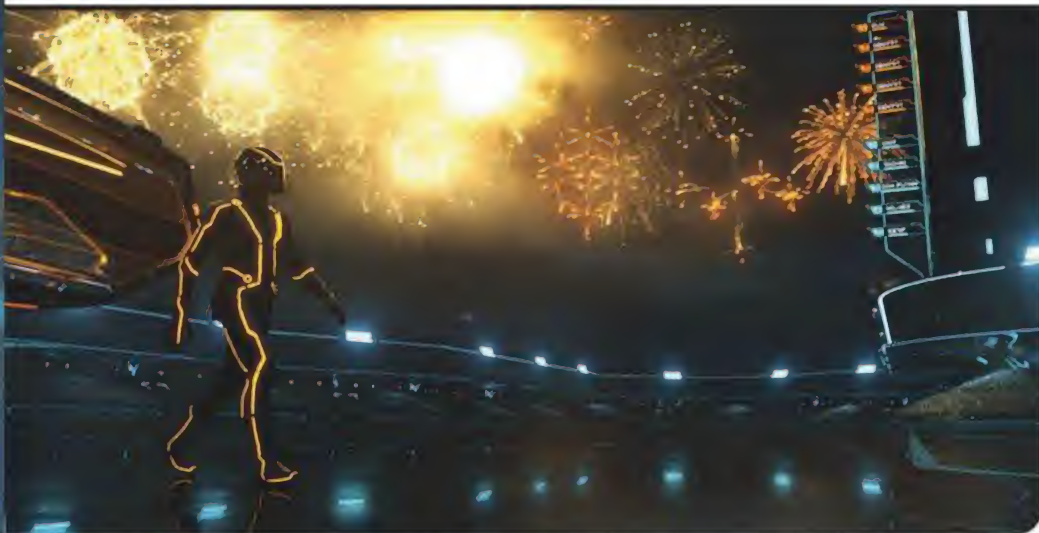
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TRON: LEGACY – 3D SUPER PLAY

Walt Disney Home Entertainment - All-region Blu-ray

Three things stick in the mind when watching this overdue sci-fi sequel: the immersive 3D presentation, Olivia Wilde in her rubber suit, and Daft Punk's electro-tinged soundtrack.

The latter is a treat for AV-hedz. Hollywood often likes to play it safe with its film scores, but the decision to hand the blockbuster reins over to

a French dance music duo was utterly the right one – *Tron: Legacy*'s futuristic soundtrack feels so natural against the backdrop of director Joseph Kosinski's stylised CG sets.

Although recorded with the help of an 85-piece orchestra at London's AIR Studios, Daft Punk's score is full of rich, synthesised bass and, through Disney's seven-channel DTS-HD mix (although the movie was released theatrically in Dolby 7.1), fills your room to bursting point.

The rest of movie's sound mix is pretty nifty, too...



PROMETHEUS: 3-DISC COLLECTOR'S EDITION

20th Century Fox - All-region Blu-ray

Ridley Scott's long-awaited *Alien* prequel is one of the most accomplished stereoscopic films around. But there's no point in having great 3D visuals if your audio mix isn't similarly immersive. Thankfully, the DTS-HD Master Audio 7.1 mix accompanying Fox's Blu-ray release is the perfect partner to the film's eye-popping visuals.

From the flyover of a primordial Earth to the final shot of *that* creature, this is one soundtrack that simply refuses to quit. The surrounds are continually engaged to breath life into Scott's locations – whether it's the sounds of computers on the bridge of the *Prometheus* or the dripping water and footsteps echoing through the tunnels of the alien compound, the mix never fails to make you feel you're right there in deep space with the rest of the cast. And this is just its atmospheric prowess – just wait 'til the more explosive sequences, such as the silica storm, to hear what this BD is really capable of.



THE BOOK OF ELI

Entertainment in Video - Region B Blu-ray

'Weapons? I'll show you some weapons!'

So begins our favourite sequence from 2010's post-apocalyptic actioner *The Book of Eli*, where Denzel Washington's stoic traveller finds himself holed up in a battered house on the prairie under attack from Gary Oldman's goon squad.

The audio here is a snapshot of the care and attention that's put into the film's entire DTS-HD MA 5.1 track. The scene is set by a delicious thump of bass as a book is thrown from a window and lands on the ground. Then, when it turns out to be a bomb, all hell breaks loose, with a shootout involving an arsenal of automatic weapons ripping holes in the building's timber framework.

Gun-fights are often a source of multichannel magnificence, but few are as insanely authentic (we assume) as this one. Bullets criss-cross the soundfield with frantic energy, and the swirling camera causes everything to flip from front to back to front again. And then an RPG is brought into play...



WALL-E

Walt Disney Home Entertainment - All-region Blu-ray

We're yet to meet anyone who doesn't have a soft spot for Pixar's comedy sci-fi jaunt, and much of the film's appeal – beyond the lush animation – lies in its scintillating surround sound. Hollywood certainly agrees, nominating Andrew Stanton's 'toon for original score, sound editing and sound mixing at the Oscars.

With entire sections devoid of dialogue, the work of audio engineer Ben Burtt is brought to the fore. On Blu-ray, this equates to a playful DTS-HD MA 5.1 track that raises the bar for atmospherics and pin-point accuracy. The desolate, windswept, future Earth of the opening act seems frighteningly real, while sonic effects, such as a clicking cockroach or Wall-E's robot voice, are startling in their clarity. Burtt famously went to extreme lengths to capture the film's array of audio tricks, utilising everything from a slinky to a 1950s hand-cranked generator. For some reason it still wasn't enough to bag him an Academy Award.



THE PACIFIC

HBO Home Entertainment - All-region Blu-ray

Almost a decade after it unleashed *Band of Brothers*, HBO took us back to World War II with this equally brilliant 10-part miniseries. And, like its predecessor, *The Pacific* made use of some of the most talented technicians in the industry – such as supervising sound effects editor Benjamin L. Cook and sound mixer Nerses Gezalyan, who between them had previously worked on the likes of *Gladiator*, *Kill Bill*, *Hellboy II* and *The Book of Eli*.

Therefore, it won't come as a shock to discover that, despite its TV origins, *The Pacific*'s gung-ho DTS-HD MA 5.1 soundtrack does a remarkable job of bringing war to life in your cinema room. Tightly-controlled gunfire flies around the soundstage, panning effects are delightfully precise (you can follow the movement of planes by the audio alone) and there's no flabby bass to be found – just tight, impactful low-frequency effects accompanying every mortar shell. This is what war is good for!



FIGHT CLUB: 10TH ANNIVERSARY EDITION

20th Century Fox - All-region Blu-ray

Nominated for an Academy Award for Best Sound Effects Editing in 2000, *Fight Club* is a showcase piece of sonic wizardry. Inventive and inspiring, it makes it worth revisiting a film you probably haven't watched in a while.

'Blu-ray is the perfect home for *Fight Club*,' sound designer Ren Klyce told HCC back in the day. 'Finally you can watch it as if you're at the cinema.' And we don't disagree, nor will anyone else who has experienced Fox's pulverising DTS-HD MA 5.1 mix. A track of remarkable breadth and vigour, it's difficult to elect individual demo sequences – although the brutal beating of Angel Face, with each deliberately over-amplified blow landing like a sledgehammer made of pure LFE, is the kind of scene that actually *hurts*.

Even the BD's extras get in on the fun with an interactive 5.1 audio remix feature. Geek heaven!

CONCERTED EFFORT

Two live music BDs that excel in different ways

The Big 4: Live in Sofia



The first time the 'big four' of thrash metal performed together makes for a nerve-shredding, headbanging BD release. Warner Music's disc captures the guitar mayhem in an astonishing 5.1 DTS-HD MA mix that uses the surround channels to place you right in the mosh pit. The bands' rhythm sections come through with real potency, and the high-frequency fretwork is just the right side of terrifying.

Lady GaGa: The Monster Ball Tour



The poker-faced pop princess is brought to the bigscreen in all her surreal glory on Polydoor's 2011 BD platter, accompanied by a TrueHD 5.1 soundtrack that dazzles with its production of the catchy basslines and drum beats underpinning her vocals, and multichannel ambience. With the crowd noise mixed just right, it's the closest you'll get to being in Madison Square Garden without jumping on a flight to NYC.



THE LORD OF THE RINGS: THE MOTION PICTURE TRILOGY – EXTENDED EDITION

Entertainment in Video - Region B Blu-ray

One boxset to rule them all? Well, that's certainly the case as far as lossless Blu-ray soundtracks are concerned. This must-own set includes the Extended Editions of Peter Jackson's epic fantasy flicks, each split across two BD50s to ensure optimal AV performance. Which is a good job, because this trio of bewitching DTS-HD MA 6.1 mixes deserves nothing less than the best.

The audio here is so unbelievably powerful and so unrelenting in its use of the full soundfield (that additional channel really helps envelop you) that your neighbours may think they're being invaded by hordes of Uruk-hai or in danger of getting trampled underfoot by an oliphaunt.

Amidst all of the trilogy's action, Tolkein's dialogue is given weight and perfectly picked out in the mix – when Gandalf bellows 'You shall not pass!' at the Balrog, you know he's not joking around. And throughout the movies, Howard Shore's memorable orchestral score is given a rich, rousing presentation. Spellbinding stuff that we hope *The Hobbit* can match.

HAVE YOUR SAY!

EMAIL US: Reckon we've missed something out? Want to make the case for *Avatar*, *Transformers* or *Casino Royale*? Then write in to letters@homecinemachoice.com

The light fantastic

BOURNE AGAIN

The spy franchise returns with a new star. BD review, p96

Mark Craven reports on an award-winning cinema room that offers both lavish lighting effects and a serious AV performance

CINEMA ROOM CHECKLIST

ONKYO: BD-SP809 THX-certified Blu-ray player

SKY: Sky+HD

MICROSOFT: Xbox 360

ONKYO: PR-SC5509 THX Ultra2 Plus processor; PA-MC5500 THX Ultra2 power amplifier

JVC: X7 3D D-ILA projector

KLIPSCH: 7.2 array including KL-650-THX Ultra 2s and KW120-THX Ultra 2 subwoofers

RTI: XP-6 processor; T-3v touchscreen remote

WHY GO FOR a swim when you can stay dry and watch a movie instead? That may have been the thinking of the owners of this home cinema – the room formerly housed a 'little-used' indoor swimming pool.

The project, undertaken by Hertfordshire-based outfit FAB AV, was given a Highly Commended award by CEDIA UK in the Best Home Cinema under £40,000 category at its latest awards, but it's what the owner himself says that's more important: 'The finished product far exceeds our expectations in terms of visual and audio quality and, best of all, it has come in bang on budget.'

The room features eight FrontRow leather recliners and a 7.2 speaker system, with the subwoofers hidden in the front wall. Amplification and processing is managed by Onkyo separates, and sources include an Onkyo Blu-ray player, Xbox 360 and Sky HD box – the projector screen was specified at 16:9 as sports broadcasts make up a sizable amount of the owner's HD diet.

System control is handled by an RTI processor and touchscreen remote. One-touch macros automatically dim the lighting when a movie begins, or usher in low-level illumination when it's paused.



FAB AV bagged a CEDIA UK Highly Commended award for its work here

FAB AV conducted extensive room calibration and audio optimisation to ensure the performance was up to standard and didn't interfere with the rest of the house. Firstly, the entire cinema is isolated from the floor by 10mm rubber isolation strips, and the ceilings and walls encased in twin plasterboard layers sandwiching Green Glue. Then, black velour panels were installed to tune the room's internal acoustics, before a Home Acoustic Alliance-standard calibration was conducted. The final result is a centre seat level of 107dB, which ought to be enough for even the most demanding of movie fans ■



INSTALL INFO

A ROOM FOR EIGHT

Seating for eight people is split over two tiers, using FrontRow leather recliners

B LET THERE BE LIGHT

Over 60m of LED light strips are incorporated into the room, both in the ceiling and framing the acoustic panels

C HIDDEN AUDIO

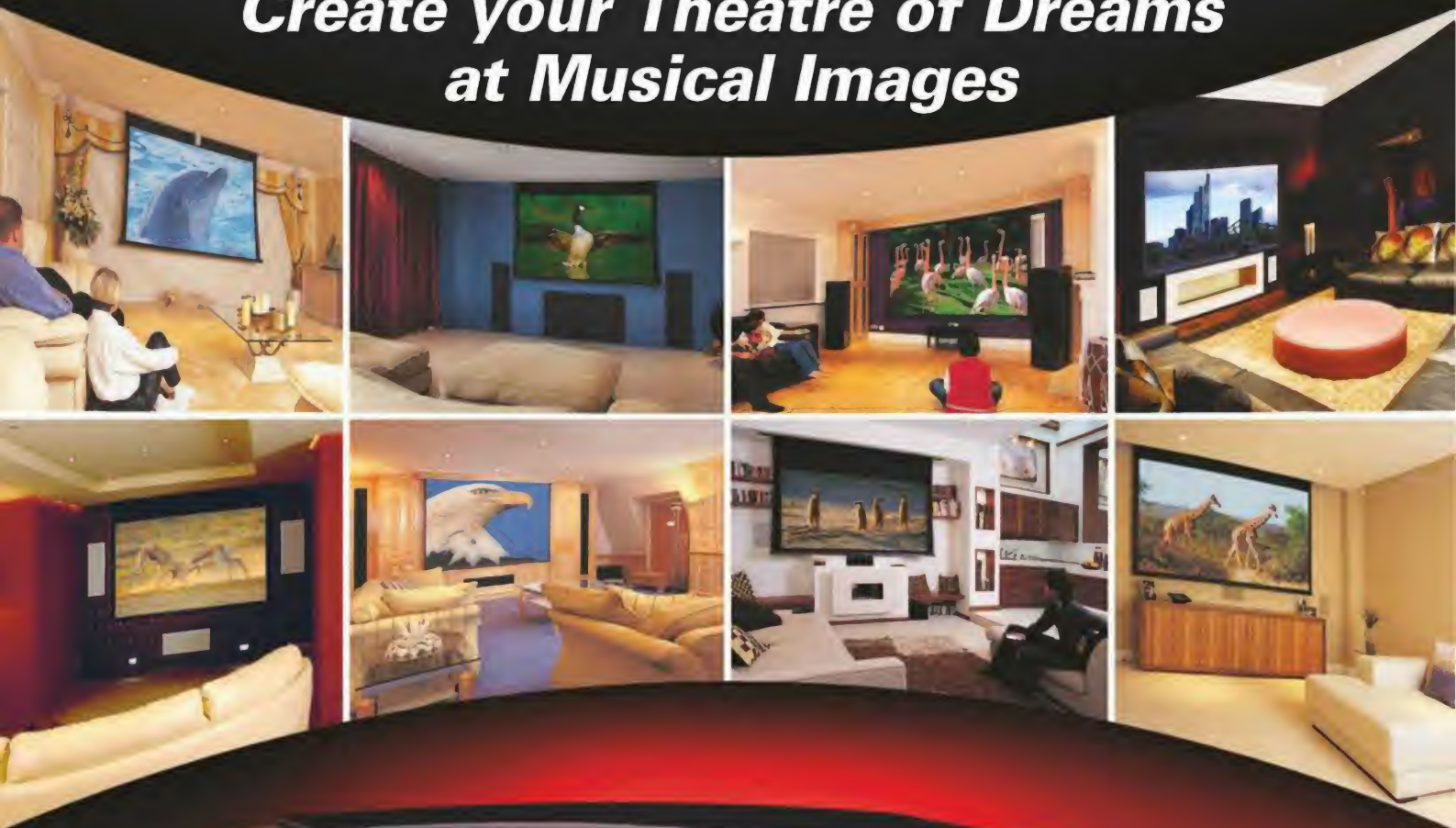
The front wall houses concealed speakers, including a pair of Klipsch subwoofers

D THX COMBI

Onkyo's PR-SC5009 processor and PA-MC5500 handle audio delivery



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REVIEWS

→ **HARDWARE HIGHLIGHTS** PIONEER Range-topping SC-LX86 AV receiver
 MONITOR AUDIO Mid-range sub/sat system EPSON Second-generation Full HD 3D projector MARANTZ
 Slim-line 7.1-channel AVR OPPO High-end universal Blu-ray player with audiophile tweaks LOEWE
 Electrostatic surround speakers ROUNDUP Four soundbars go head-to-head AND MUCH MORE!

Bigscreen beauty



Philips moves away from the high-end with this mid-priced 55in LED TV. See p50 for our verdict

HCC RATINGS KEY...

Outstanding	★★★★★
Above average	★★★★☆
Acceptable	★★★☆☆
Disappointing	★★☆☆☆
Dire	★☆☆☆☆

Black magic

Pioneer's top-flight AVR will easily cut the mustard as the beating heart of any high-end multichannel setup. Unless, like [Richard Stevenson](#), you run 11.1...

THE LATEST IN a long line of top-spec receivers from Pioneer comes to the table positively bristling with state-of-the-art design, style and features. We would expect no less from Pioneer, of course, and the SC-LX86 has all the right ingredients to be a real hub of home entertainment whether your passion is movies, broadcast video, music or streamed content of any sort. The question is whether the presence of additional features, like its asynchronous USB audio input, plug-and-play iOS device integration and MHL support, means that Pioneer's latest AVR has lost sight of its home cinema routes.

The answer, thankfully, is no. While brand-new home cinema-specific technologies have been few and far between of late, Pioneer has been busy buffing its previous award-winning SC-LX85 to new levels of AV polish. THX Ultra2 Plus specification, Pioneer's Direct Energy HD amplifiers, all-channel phase control, PQLS jitter-free audio syncing and the latest incarnation of Pioneer's MCACC room EQ software have all been tweaked and fettled. The claimed nine channels of 190W amplification (measured into six ohms) remains unchanged, as does this machine's ability to add height or width channels (but, sadly, the SC-LX86 has no way of running both simultaneously – more on that later).

Rather than adopting a 4K scaler like many of its rivals, Pioneer has gone down a slightly different, and arguably currently more relevant, video route. The SC-LX86 only offers 4K passthrough but does pack in a Video Stream Smoother to improve low bitrate video, such as YouTube footage and even SD fare. This is very handy for watching broadcast SD on large screens, as it significantly reduces block artefacts that can be annoying on sports programs in particular. Its advanced video adjustment menu is comprehensive and draws some data from the MCACC calibration to adjust images relative to the viewer's distance from the screen.

DAC for all seasons

Under the hood there is now a 32-bit DAC fed from a bitstream or PCM disc source, the asynchronous USB input, digital inputs or any

AV INFO

PRODUCT:
9.2-channel AVR

POSITION:
Top of Pioneer's current lineup

PEERS:
Denon AVR-4520;
Onkyo TX-NR3010;
Arcam AVR-400

The remote is bland and packed with controls – stick to the app if you can



streamed digital media including AirPlay. The DAC offers different filter settings to tweak the sound. Labelled 'slow', 'sharp' and 'short', each has a subtle effect that may sound better or worse than the others depending on how the source material is recorded. As this sort of thing sends me into a quandary every time I reach for a disc, a 'standard' setting would have helped with my sanity if nothing else.

While most AVRs have a control app these days, Pioneer's iControlAV2012 remains the master of them all. It is, by a massive margin, the prettiest, most inventive and fun-to-use app available. In fact, it's nearly worth buying a dedicated tablet device just to use as a remote. The interface is always lavish to look at and encompasses direct-from-device AirPlay and Air Jam3 support in its iOS guise. It hasn't changed much since my last Pioneer AVR review (the VSX-922) except there is now an Android version, too.

And if the app is good, the interactive manual is just plain awesome. Running on a tablet or connected PC, this pulls up relevant pages as soon as you touch a button on the AVR or the remote. To date this tech remains a fabulous Pioneer exclusive.

As befits a top-of-the-range AV receiver, the SC-LX86's accessories are pretty special, too. You get a neat Wi-Fi adapter that matches Pioneer's cool-as-a-cucumber house style and a bundle of cables, including an Apple 30-pin to USB, HDMI to micro-USB to leverage the MHL input, and a combined USB power/Ethernet cable for the Wi-Fi adapter. The only fly in Pioneer's otherwise faultless operation ointment is the rather bland remote control with its plethora of microscopic buttons. Still, if you have a tablet it's redundant anyway.

Overall the SC-LX86 has plenty of promise, even if it's a very light make-over of the SC-LX85 rather than a whole new beast.

Enigmatic setup

Despite all its user-interface awesomeness, setting up the SC-LX86 proved to be something of an enigma. While you can connect, set up and measure eleven speakers and a subwoofer using MCACC, you can't actually output eleven channels at the same time, even using the analogue outputs and an





Pioneer's top-flight AVR offers a luxurious design and finish

additional power amplifier. The machine switches between height and width output channels but you can't have both simultaneously. That is really, really annoying when Neo:X 11.1 optimised discs are now available, such as *The Expendables 2*, and is a trick that the Pioneer's nemesis, the Denon AVR-4520 (which arrived just before we sent this mag to the printers – come back next month, folks!), handles with aplomb.

The MCACC system measures all of the standard parameters plus EQ, phase, standing wave and reverberation in a single 10-15 minute execution with a single mic position

'The SC-LX86 moves Pioneer's flagship AVR series forward once again in small but highly polished steps'

– so far, so good. Unfortunately, I found this latest implementation to be rather finicky in its phase measurements. On the first run it showed four speakers were out of phase, and I am not that bad at wiring up speakers. By moving the microphone just seven inches forward and running the setup again it indicated three completely different speakers were out of phase.

After several attempts with the mic and speakers in different positions I had to conclude that the phase measurement was just too sensitive to room effects. I carried on ignoring the warnings and wondered quite what effect that would have on the efficacy of Pioneer's sophisticated phase control...

Looking at the MCACC results it was clear that the SC-LX86 also suffers from a failure to incorporate efficient speakers in the measurements. Like many AVRs that attempt to balance the speaker levels using a fixed sound pressure level, the Pioneer applied its maximum -12dB cut to all five of my front channels. This fails to take into account my centre channel speaker being a good 3dB/W more efficient than my main or width speakers, resulting in the centre channel coming in way too hot. To be fair to Pioneer this happens to many AVRs in my setup, but it could so easily be fixed with the option to measure relative to the volume level of the front main speakers rather than a fixed SPL. So despite the sophistication of the MCACC system, I had to go back into the speaker settings and adjust the speaker levels manually. Sigh.

All systems go!

Straight out of setup the default of the SC-LX86 is pretty much every audio enhancement set to 'on'. In this mode the Pioneer sounds fast and fluid with clinical

detailing but rather lightweight overall. By removing pretty much any bass node in the room, killing off standing waves and reducing low-frequency reverberation and room bloom, the sound comes across frisky at the top and leaner than a racing whippet. The opening action fest of *The Expendables 2* was delivered as a spectacular feast of extremely well-detailed effects and crystal-clear dialogue yet bass was reticent to the point of being shy. Given a handful of volume to bring on the power, the sound got rather sharp and trashy.

While I have little doubt that the Pioneer's EQ system was delivering a ruler-flat output in my room, the theoretical ideal does not always result in the most rewarding sound. Thankfully, the Pioneer's EQ Pro menus are so comprehensive that there is plenty you can do to tune the sound. Simply applying an X-Curve for my room size, trimming HF output by 1dB/octave, immediately delivered a more robust and punchy cinema sound.

An hour of trimming, tweaking, adjusting, listening and re-adjusting later and the SC-LX86 was showing its true potential. Its overall balance remains clear and intricate,



CONNECTIONS

A ZONE 4 HDMI OUT

This third HDMI output lets you take hi-def video into another room

B COMPONENT SWITCHING

The SC-LX86 offers comprehensive component video switching, something that its rivals are beginning to phase out

C 11-CHANNEL TERMINALS

Plenty of speaker arrangements are catered for here, but it's surprising that the Pioneer can't process height and width channels simultaneously

D USB DAC INPUT

Use this asynchronous USB input for playback of high-fidelity PC-based music



a trait carried forward from the original SC-LX81 we reviewed in *HCC* #165 over four years ago. With the added warmth gained from reducing reverb and standing wave control it really gets into the groove. Returning to the opening sequence of *The Expendables 2*, the front soundstage comes alive with the sheer pace and drama of the scene and low-frequency effects are delivered with panache. A gung-ho extra dB or two on the subwoofer level gives the sound real body and depth, and with all nine channels driven the Pioneer fills the room with sound.

Wide boy

Neo:X flagged material will generally default to 7.1 plus height channels on nine-channel AVRs like the Pioneer, but I began by forcing it to 7.1 with extra width channels. This crafts a wide, wide, wide front soundstage. Even if you can't get your width speakers much further out than your mains (less than 50cm in my case) the effect is sublime at smoothing out the front sound and reducing the feeling of everything coming from just three specific points. The Pioneer integrates this supremely well and

switching to height channels is no less impressive. This pulls dialogue up onto the screen and generates solid three-dimensional sound at the front of your room. Oh, if only we could have both height and width!

To use the asynchronous USB input you need to load Pioneer's USB driver on your source PC, and this worked absolutely seamlessly. Streaming a 96kHz/24-bit file of Eleanor McEvoy with the Pioneer in Pure Direct mode, the sound is a revelation in audiophile resolution. The presentation has a light and airy touch that will appeal to audiophiles who like to really analyse their music note by note. Like the movie sound, it's a little cool and not exactly a bass monster, yet its accuracy and detail cannot be faulted.

So, the SC-LX86 moves Pioneer's flagship AVR series forward once again in small but highly polished steps. I do have my concerns about the MCACC system, though, and its inability to run a full 11-channel array, despite packing the necessary post-processing modes, is a curious, frustrating anomaly that I didn't expect from a flagship model. But it probably doesn't matter to you, eh? ■

ON THE MENU



→ Pioneer's iControlAV2012 app is simply the best in the business, making controlling the AV receiver from a tablet a real treat. It offers smart-looking graphics and a sensible layout, and includes full access to the SC-LX86's myriad features

SPECIFICATIONS

DOLBY TRUEHD: Yes, and Dolby Pro-Logic IIz
DTS-HD MASTER AUDIO: Yes, and Neo:X

THX: Yes, THX Ultra2

MULTICHANNEL INPUT: Yes, 7.1-channel

MULTICHANNEL OUTPUT (CLAIMED):

9 x 190W (into six ohms)

MULTIROOM: Yes. Three additional zones

AV INPUTS: Yes, 4 x composite; 4 x digital

audio (2 x optical and 2 x coaxial)

HDMI: Yes, 8 x inputs; 3 x outputs (v1.4)

VIDEO UPSCALING: Yes, to 1080p

COMPONENT VIDEO: Yes, 3 x inputs; 2 x

outputs

DIMENSIONS: 435(w) x 441(d) 185(h)mm

WEIGHT: 18kg

ALSO FEATURING: MCCAC with EQ Pro; USB

asynchronous DAC input; PQLS clock sync with

compatible Pioneer Blu-ray players;

4K passthrough; Stream Smoother; Standing

Wave control; MHL compatibility; AV Navigator

set-up app; iControlAV2012 control app; direct

Apple device support; Airplay; AirJam; Wi-Fi

adapter supplied; Bluetooth adaptor port; AIR

Studio tuning; 192kHz/32-bit DAC

HCC VERDICT



Pioneer SC-LX86

→ £2,200 Approx → www.pioneer.eu/uk

→ Tel: 0870 600 1539

HIGHS: Polished sound; user friendly; asynchronous USB input; Stream Smoothing video function; awesome control app

LOWS: No 11-channel output; fickle auto setup system; rather lean sound; lack of 4K scaling will annoy badge hunters

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★



MASS is the shape of things to come

Mark Craven enjoys some music and movie thrills with Monitor Audio's £800 MASS sub/sat system

I BELIEVE MONITOR Audio's Mass system is destined to be a good seller. Sub/sat packages in general are more likely to shift units than larger, costlier arrays, and this has a lot going for it. First, it's from a respected brand that, over the years, has rarely put a foot wrong. Secondly, it's got a neat style thing going on. Thirdly, the total £800 ticket is just the right side of £1,000 (where some people start to sweat when buying speakers), but

comfortably high enough to entice audio snobs who won't entertain the idea of a £400 or £500 setup. That it offers a delightful multichannel performance is the icing on the cake.

Shapely satellites

In terms of design, Monitor Audio is offering something a bit different here. Having failed geometry, I'm not sure exactly what shape

AV INFO

PRODUCT:
Mid-range 5.1
sub/sat system

POSITION:
Above the Vector
range, below
the Radius

PEERS:
Q Acoustics 7000;
KEF KHT3005SE



Monitor Audio's MASS satellites are smartly designed and well-built

each MASS 10 satellite is (look at the photography and decide for yourself), but the tapered top and bottom are easy on the eye.

Monitor Audio's satellite stands 9in high and is light enough to be carried around in the palm of your hand but weighty enough to instil confidence in its abilities. Three sides are wrapped in black speaker cloth, while the ported rear is black plastic. On each end is a smart-looking aluminium plate – the bottom one pops off to reveal the speaker terminals.

Installing these speakers can be a simple matter of putting them on whatever flat surface you can find (the centre channel comes with a little cradle to stop it rolling away) but I auditioned them with the additional £125-per-pair stands, and I'd advise potential buyers to give these consideration. Not only do they make it easier to site the MASS cabinets in optimal positions, but they make cabling a lot easier, too – each stand has its own set of side-mounted binding posts on the plinth.

Completing the package is the MASS W200 sub. This comes in a box bigger than the one housing all five satellites, with the legend 'Useless if dropped' on the packaging.

And, yes, it is big. Disconcertingly so, considering the size of its colleagues. A full 38.5cm wide and 42cm high, it rather destroys the MASS system's potential to be a true lifestyle product of the sort usually illustrated by a woman in white pajamas drinking an espresso in a sun-drenched waterfront apartment. If that's you, you'll want to head elsewhere.

The rest of us can instead smile, as the MA sub is no half-hearted attempt at the .1 channel. Grunt is provided by a 220W amp and its 10in driver is supported by another 10in passive radiator (which seems to be the current 'in thing'). Monitor Audio calls it a 'powder keg for bass'. Just how I like it.

Onboard controls are provided for phase and crossover (the latter is disabled if the sub is fed via the LFE input from your AVR) and a

switch to flick between Music, Film and Impact settings, each adding a few dBs at certain frequencies. Find the one you like the best and stick to it – the notion that you're going to poke around the back of your subwoofer every time you go from watching a movie to listening to a CD is preposterous. If the switch was on the top of the sub, however...

Familiar features

A big slice of the MASS system's price will be the cost of its driver technology. Monitor Audio's C-CAM mid-bass cone is a feature of pretty much all the brand's speaker lines, a rigid aluminium/magnesium mashup with a ceramic coating that provides heat dissipation. A cheapo paper cone this ain't. The tweeters are also C-CAM flavoured, with a gold anodised finish.

Fed by my Yamaha RX-V673, the MASS 5.1 system gives a good account of itself, easily justifying the price tag. As you'd expect given the satellites' homogenous nature, >



there's a smooth sound on show here as material moves around the soundstage. The overriding impression is one of clean high-frequencies and a fulsome mid-range, although both scale and sheer output are limited compared to my more expensive Crystal Acoustics floorstanders.

The subwoofer, however, has been tailored to make up for these shortcomings. With 5.1 movie mixes, or with music platters running in my AVR's all-channel stereo mode, it adds a slice of weight and size to the whole soundstage, seemingly making the MASS satellites' output larger than it is. This, of course, is the whole point of a sub, and with my Yamaha's crossover set at 80Hz there's a nice sense of integration. *Lynyrd Skynyrd's Greatest Hits* (CD) oozes out of the MAs with

'The MASS system shines with *Jurassic Park* on Blu-ray – the sound is crisp, detailed and utterly immersive'

foot-tapping panache; the rhythm section unmuddled and tight, the percussive *tocks* and *tings* cleanly picked out.

The subwoofer can get down and dirty, too. Chase and Status' *No More Idols* (CD) may be an unashamed slab of noisesome yoof music but it certainly helps separate the men from the boys. Bestowed with fantastic amounts of computer-derived bass, tracks like *Hocus Pocus* give the MA woofer a chance to flex its muscles, dropping deep and, essentially,

The W200 subwoofer uses twin 10in drivers – one active, one passive – and a 220W amplifier

turning your living room into a seedy nightclub. It's absolutely awesome, although I did notice the sub losing some of its tightness when faced with the rapid-fire double bass beats of Metallica's *Battery*.

Switching to two-channel music, and there's a temptation to crank up the volume to make up for the lack of the W200. Go too high, though, and you'll detect the satellite's begin to strain, with a brashness and lack of distinction creeping in.

Prehistoric performance

Put into action with film soundtracks, the MASS system simply shines. With *Jurassic Park* on Blu-ray, the footfalls of the T-Rex sound suitably ominous and omnipotent and the Hollywood-science dialogue has presence and weight from the horizontal centre channel. During sequences like the Gallimimus stampede in Chapter 14, the package proves adept at putting you in the heart of the action. Spielberg's fleet-footed dinosaurs knock into each other as they race past from the rear of the soundfield to the front, and the sound is crisp, detailed and utterly immersive. Meanwhile, on Ridley Scott's *Robin Hood* (Blu-ray), Marc Streitenfeld's memorable score is richly delivered by the C-CAM drivers.

Overall, Monitor Audio's newest product lineup is the perfect partner for a mid-range AVR in a living room cinema setup. Everything from the build quality and design to movie and (sub-assisted) music performance impresses. Another £180 would secure an extra pair of the MASS 10s for a 7.1 setup... ■

SPECIFICATIONS

MASS 10 SATELLITE

DRIVE UNITS: 1 x 4in C-CAM mid-range driver; 1 x 1in C-CAM tweeter
ENCLOSURE: Ported
FREQUENCY RESPONSE: 80Hz-30kHz
SENSITIVITY: 84dB
POWER HANDLING: 100W
DIMENSIONS: 224(h) x 128(w) x 128(d)mm
WEIGHT: 1.65kg

MASS CENTRE

DRIVE UNITS: 1 x 4in C-CAM mid-range driver; 1 x 1in C-CAM tweeter
ENCLOSURE: Ported
FREQUENCY RESPONSE: 80Hz-30kHz
SENSITIVITY: 84dB
POWER HANDLING: 100W
DIMENSIONS: 128(h) x 228(w) x 128(d)mm
WEIGHT: 1.65kg

MASS W200 SUBWOOFER

DRIVE UNITS: 1 x 10in C-CAM long-throw driver; 1 x 10in auxiliary bass radiator
ENCLOSURE: Sealed
FREQUENCY RESPONSE: 40Hz-120Hz
ON BOARD POWER: 220W
REMOTE CONTROL: No
DIMENSIONS: 420(h) x 385(w) x 385(d)mm
WEIGHT: 16kg
CONNECTIONS: Stereo phono input; LFE input

HCC VERDICT



Monitor Audio MASS 5.1

→ £800 Approx → www.monitoraudio.co.uk
 → Tel: 01268 740580

HIGHS: Slick multichannel performance; excellent build quality and design; optional stands; good value

LOWS: Speaker terminals are a bit fiddly; limited in scale and output

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★



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Philips does it the Easy way

With the 55PFL6007, Philips attempts to convince **John Archer** that it can do affordable TVs as well as its swanky flagship stuff

AV INFO

PRODUCT:
55in Passive 3D TV

POSITION:
The 55PFL6007 sits in the lower middle area of Philips' latest range

PEERS:
LG 55LM660T;
Samsung
UE55ES6800;
Sony KDL-55EX753

The 'soap bar' design may have gone, but this new remote is superb



WHILE SOME MAY have had concerns about Philips' TV business, it's safe to say that things appear firmly on track following its deal with TP Vision. Last issue we marvelled at the pictorial delights – at least in 2D mode – of the brand's latest Moth Eye filter TV, the 46PFL9707. And now we find ourselves face to face with the more value-conscious but still pretty spectacular 55PFL6007.

The 55PFL6007 resides squarely in the middle of Philips' new range, with a £1,700 price tag that really isn't steep for a 55in TV. The TV enjoys such features as 3D playback, an online video and app platform, extensive multimedia playback from USB drives or networked PCs/Macs and a surprisingly potent picture processing engine.

The 55PFL6007 looks like it's worth more than £1,700, too – it's one of the smartest flatscreens around. The build quality is more lightweight than the 46PFL9707, but its bezel is extremely slender, its black finish is deep and lustrous, and its shape is appealingly no-nonsense. It doesn't stick out much round the back either, and that back is illuminated – literally – by the appearance of Philips' Ambilight system.

Ambilight uses an array of LEDs to cast pools of light from the TV's left and right edges, matched with uncanny accuracy to the colour content of the screen image. It sounds gimmicky, but once you've lived with its immersive and relaxing properties for a day or two, it becomes something you definitely miss when it's gone.

The 55PFL6007 is richly connected for a mid-range TV. Four HDMI inputs get the ball rolling, all built to the v1.4 specification in support of the set's 3D capabilities. There are three USBs, delivering playback of key photo, music and video files, while DLNA PC networking and access to Philips' Net TV service comes courtesy of an Ethernet port and built-in Wi-Fi.

So far so good. But there is a disappointment in store when you check out the 55PFL6007's online services. There just

aren't enough of them to compete with the online systems of Sony, Panasonic, LG and Samsung. Notable highlights at the time of writing are Acetrax, BBC iPlayer, Blinkbox, Euronews, YouTube, Viewster, iConcerts, Facebook, Twitter and Skype. Those who really hanker after the 'smartest' TV around should look elsewhere.

The 55PFL6007 doesn't benefit from the full QWERTY keyboard found on the reverse of the 46PFL9707's remote control. Also, the smart portal's inefficient use of available screen space will likely make navigating through apps a chore when – if – their number rises.

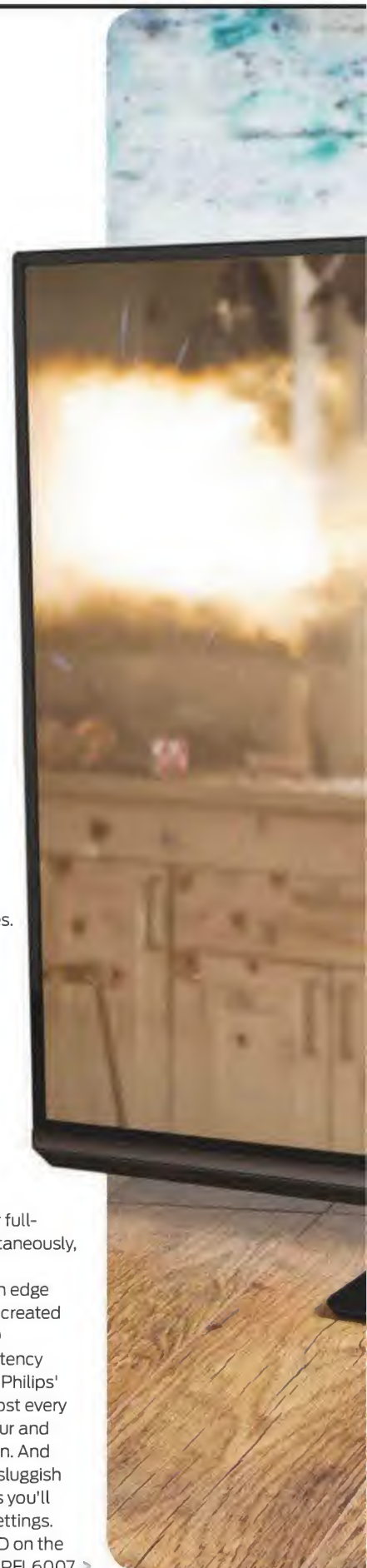
Easy does it

The 3D here is of the Passive variety (or 'Easy', as Philips dubs it) rather than the Active system used by the flagship 46PFL9707. Philips is one of a growing number of brands to include both 3D flavours in its TV range, positioning Passive as the cost-effective option.

It's worth adding here that the 55PFL6007 can use the twin visual 'channels' of its 3D system to deliver full-screen gaming for two players simultaneously, albeit at a reduced resolution.

Philips' screen is illuminated by an edge LED lighting system, and its pictures created through the brand's Pixel Precise HD processing system. This lacks the potency of Perfect Pixel HD system found on Philips' high-end TVs, but still works on almost every element of picture quality, from colour and contrast through to detail and motion. And within the 55PFL6007's somewhat sluggish and terrifyingly long onscreen menus you'll find the tools to adjust many of its settings.

Having been underwhelmed by 3D on the 46PFL9707, I thought I'd start my 55PFL6007 >



The screen's superthin bezel is certain to attract admiring looks



TRIGGER HAPPY

Check out our *Resident Evil: Retribution* BD review, p98





tests with the 3D Blu-ray of *Titanic*. And, surprisingly, it turned out to be rather brilliant.

The switch to Passive tech means the 55PFL6007 avoids almost completely the crosstalk noise so prevalent on the 46PFL9707. Detailed shots, like the large-scale crowd scene outside the *Titanic* before it sets sail, therefore appear crisper, cleaner and full of natural depth – particularly as the TV handles 3D motion surprisingly cleanly.

The 55PFL6007 also benefits from the relatively high brightness and colour punch you get with Passive 3D; the resplendent colours of the outfits and decor of *Titanic*'s first-class

'With *Titanic* on Blu-ray, the big Philips' Passive 3D performance turns out to be rather brilliant'

areas are brought to luxurious life with a vibrancy few Active 3D TVs can match.

The 55in screen does reveal Passive 3D's disadvantages, though, namely jaggedness around bright edges, a minor reduction in resolution versus the best Active 3D images and occasionally visible horizontal line structure. But these don't stop it from being a genuinely engaging, non-fatiguing pleasure.

Moving to HD 2D, in the form of the *Dark Knight Rises* Blu-ray, the 55PFL6007 continues to impress. Sharpness levels during pixel-packed sequences, such as the street battles towards the film's end, are superb, thanks to a combination of the panel's natural Full HD clarity and impressive motion clarity. My advice

3D Blu-rays lose some of their horizontal resolution, but remain bright and generally crosstalk-free

is to use the set's HD Natural Motion processing system on its lowest setting to ensure images don't look over-processed.

Blu-rays also appear colour-rich and bright, holding attention through *Dark Knight Rises*' relatively dark or pallid moments, such as those inside Batman's equipment vault. Colours contain a fair amount of subtle tonal detail, considering this is a mid-ranger set.

The Philips generally handles dark scenes without concern, producing blacks that are sufficiently free of low-contrast greyness, so you won't feel alienated from what you're watching. And with the backlight reduced a tad, the screen doesn't suffer excessively from any light pooling issues from the edge LED array. I did notice a subtle patch of extra light in the top-left corner of our review set, but only when the image was more or less totally black.

Dark scenes do lack shadow detail at times, in comparison to higher-end sets, and colours aren't as nuanced as those of the 46PFL9707. Fust occasionally images look a bit gritty – an artefact, experience suggests, of the slightly reduced accuracy of the Pixel Precise HD processing versus the Perfect Pixel HD version.

Also, while actually good by the standards of the mid-range bigscreen market, the 55PFL6007's standard-def upscaling isn't as assured when it comes to suppressing noise as Philips' more accomplished models. But then this is no more than you would expect.

Overall the 55PFL6007's pictures comfortably outperform expectations. While the Moth Eye TV is technically superior, this model is arguably a better litmus test of where Philips' true TV talent levels lie ■

ON THE MENU



→ While Philips' Smart TV portal is clearly designed and easy to browse, there's still a lack of top-quality VOD content compared to rival systems. BBC iPlayer, Napster and YouTube are the highlights here

SPECIFICATIONS

3D: Yes. Passive, with four pairs of glasses supplied

FULL HD: Yes. 1,920 x 1,080

TUNER: Yes. Freeview HD

SMART TV: Yes. Net TV

CONNECTIONS: 4 x HDMI; component video input; composite video input; 3 x USB, Ethernet; headphone jack; RF jack; CI slot; VGA PC; optical digital audio

SOUND: 2 x 10W

BRIGHTNESS (CLAIMED): 400cd/m2

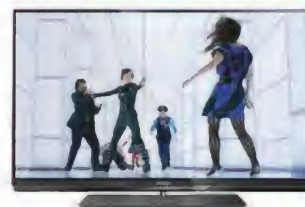
CONTRAST RATIO (CLAIMED): 500,000:1

DIMENSIONS (OFF STAND): 1240.8(w) x 30.2(d) x 744.32(h)mm

WEIGHT (OFF STAND): 22kg

FEATURES: Built-in Wi-Fi; full-screen two-player gaming; Pixel Precise HD processing; HD Natural Motion; DLNA streaming and multimedia playback via USB (including MKV, AVI, WMV, MPEG-4, AAC, MP3 & WMA; micro dimming; 400Hz Perfect Motion Rate system; Ambilight Spectra 2; 62W claimed power consumption; Eco mode; setup wizard

HCC VERDICT



Philips 55PFL6007

→ £1,700 Approx → www.philips.co.uk

→ Tel: 0844 338 0488

HIGHS: Excellent 3D pictures and decent 2D performance; above average audio; good value

LOWS: Smart portal is still undernourished; menu system is quite demanding; average shadow detailing

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

FAB

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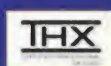
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Home cinema on a diet

Marantz upgrades its slim-line network AV receiver with Spotify and superior connectivity.

Steve May suggests tech hipsters take a closer look

AV RECEIVERS ARE too big, too complicated and too damn old school. That's the unspoken truth for a generation weaned on portable devices and wireless widgets. While home cinephiles will rightfully defend an opposing view, the fact is that for many, AVRs have simply become an irrelevance.

It's a situation that the Marantz NR line of receivers seeks to address. Adopting a slim-line form factor and shorn of extraneous legacy embellishments, the emphasis here is on multimedia entertainment rather than hardcore theatre. THX? Thanks but no thx...

The NR1603 looks ostensibly similar to last year's NR1602, but sports a number of significant upgrades. The fascia has been de-cluttered and the display made larger. It also comes with proper speaker binding posts for every channel and sensible

connectivity. There are six HDMI inputs in total, one front-mounted. There's still only a single HDMI output, but at least it's ARC compliant.

Crucially, the NR1603 offers both AirPlay and Spotify, alongside Last.FM, Flickr and internet radio. There's no integrated Bluetooth, but you can invest in an optional receiver which plugs into the M-XPort (Marantz-eXtension) port on the rear.

Ripsters will be pleased to hear that file playback is first-class, with extensive support from both local (front-mounted) USB and across a network (via rear-placed Ethernet). MP3, WMA, AAC, WAV, FLAC and FLAC 96/24 all unspool. While video playback isn't offered, you can render JPEGs.

Despite all this cutting-edge functionality, the receiver still features a vestigial AM/FM radio. This seems quite superfluous given the

provision of internet radio, but I suppose someone, somewhere, might have need of it.

Wizard wheeze

To simplify installation, the NR1603 offers a hand-holding setup wizard. While this is fine for most components, adding a Sky box proves unnecessarily complicated. Because Sky doesn't (yet) deliver 5.1 over HDMI on its PVRs you need to assign a digital optical feed alongside the HDMI input. On the Marantz this is complicated by the fact that simply assigning the input isn't enough, you must navigate a separate menu to prioritise said input. This additional complexity caused all manner of head-scratching...

Helpfully, the receiver can be configured via a web browser interface when networked. This route opens the door to some sophisticated

AV INFO

PRODUCT:
'Slim-line'
networkable
7.1-channel AVR

POSITION:
Above the NR1403
in Marantz's stable

PEERS:
Pioneer VSX-S500;
Sony STR-DN1030;
Onkyo TX-NR515



adjustment and is by far the best way to dig deep.

The user interface itself has also been revised from last year's model, and now offers an HDMI overlay – still something of a rarity at this price point. Unfortunately, HDMI passthrough is MIA. Consequently, you can't leave the AVR in standby mode and enjoy connected sources, as you can with some similarly-priced competitors. The thing must be powered up to deliver the goods, which somewhat undermines its claim to total modernity – as does the unit's lack of Wi-Fi capability.

The remote control, simplified from last year's button-strewn effort, proves easy to live with, offering colour-coded access to the various surround configurations available (Music, Movies, Game and Pure). All the familiar Dolby and DTS codecs are resident.

Sound tuning is via Audyssey MultEQ; up to six listening positions can be measured and calculated with the bundled microphone.

Agile performer

Beneath the bonnet is a relatively modest power section offering 50W per channel, but this seven-channel design has more poke than the numbers imply. Speaker configuration can be either classic 7.1 with side and back surround channels, or surrounds plus additional front heights. 5.1 users have the option of running a second stereo zone; this can serve either the same content as the main

room, or a separate source. For this audition, I ran the system in a standard 7.1 layout.

In home theatre mode, the NR1603 has undeniable heart. *Avengers Assemble* is packed with popcorn highs and not even a full-blown alien invasion is enough to make the Marantz falter. The AVR is equally at home with less wrought theatrics. The opening of *Rise of the Planet of the Apes* features a dramatic flurry of jungle birds from the rear soundstage as poachers entrap a troop of apes. As nets fly skyward, the soundstage jumps accordingly. Fast-forward a smidgeon, and when Bright Eyes breaks free in the laboratory, glass shatters and the score pumps in unison. The audio is clean, deep and exciting.

The receiver displays simian agility with stereo sources, too; a welcome consequence of discrete circuit configuration, no doubt. Its demeanour is more party animal than po-faced critic, though. A few cuts from Kiss' *Monster*, in multichannel Dolby PL2 Music, will have even the humpiest dowager breaking out the air guitar.

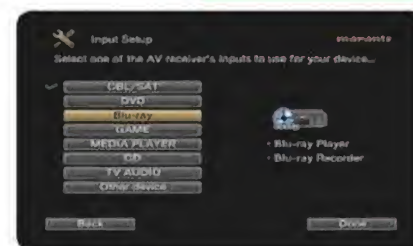
Successful revamp

Overall, the NR1603 should be considered a successful revamp of an already attractive, forward-looking receiver. Marantz is trying something different here, and largely getting things bang on. Well-built and generously equipped, the NR1603 is proof that there's life left in the old AVR dog yet ■

The NR1603 has a larger display than last year's model



ON THE MENU



→ The NR1603's menus make use of Marantz's grey and gold livery and a wizard is on hand to guide you through setup. Hook up the AVR to your network and you can configure it via a web browser, too

SPECIFICATIONS

DOLBY TRUEHD: Yes, and Dolby Pro-Logic IIz
DTS-HD MASTER AUDIO: Yes

THX: No

MULTICHANNEL INPUT: No

MULTICHANNEL OUTPUT (CLAIMED): 7 x 50W

MULTIROOM: Yes. One additional stereo zone
AV INPUTS: 3 x composite video and stereo phono audio; 2 x digital audio (1 x optical and 1 x coaxial)

HDMI: 6 x v1.4 inputs; 1 x v1.4 output

VIDEO UPSCALING: Yes. To 1080p

COMPONENT VIDEO: 2 x inputs; 1 x output

DIMENSIONS: 440(w) 367(d) 105(h)mm

WEIGHT: 8.3kg

ALSO FEATURING: iPod support via USB dock; Ethernet jack; DLNA support; Spotify; AirPlay; net radio; Flickr; Last.FM; USB port; AM/FM radio; Audyssey auto-calibration via microphone; M-XPport (Marantz-eXtension Port); bi-amp front speaker option

HCC VERDICT



Marantz NR1603

→ £550 Approx → www.marantz.co.uk

→ Tel: +44 2890 279830

HIGHS: Tight, dynamic sound quality; versatile media streaming; Spotify and AirPlay compatible

LOWS: No HDMI passthrough; single HDMI output; no Wi-Fi capability

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

The return of the wireless wonder

Epson has revamped its top-of-the-range Full HD 3D projector, and – according to **Martin Pipe** – managed to make a good thing even better

WE REALLY LIKED Epson's TW9000W, the company's earlier foray into the 3D PJ market. A 3-chip LCD design with Full HD resolution, the TW9000W was well-endowed with features, including an ISF calibration mode, THX certification, wireless HDMI and a 480Hz refresh rate to reduce 3D crosstalk.

An impressively specified PJ, it also happened to turn out good pictures that, not

so long ago, would have done justice to expensive state-of-the-art gear. Now comes its replacement, the TW9100W.

Physically, there's not an awful lot of difference between the two models – the styling is similarly lavish. Setup wise, you get the same non-motorised 2.1x lens, which is automatically protected by a shutter when not in use. A correctly focused 120in 16:9 picture

can be thrown from distances between 3.6m and 7.6m. Although brightness remains at 2400 ANSI lumens, Epson claims that the new model boosts its contrast ratio from 200,000:1 to 320,000:1.

Also inherited from the original are vertical/horizontal lens shift thumbwheels and concentric lens rings for zoom and focus. These controls are smooth-acting, and don't



The new wireless HD sender features five HDMI inputs for source switching

'drift' with temperature. And, as with the TW9000W, an onboard pattern-generator helps you set up your picture. Keystone-correction can, if necessary, be adjusted from the projector's side-mounted menu controls.

The Epson offers comprehensive settings memories. The setup menus responsible for these are well-designed – as is, for that matter, the comfortable backlit handset.

In addition to the usual TV-type picture adjustments, you get control over gamma curves (one of which is user-defined), deinterlacing mode, skin-tone, overscanning and colour temperature presets (R/G/B offset and gain adjustments are available, too). Menus also configure broadcast 3D formats (side-by-side or top-and-bottom), 2D-3D conversion and screen size.

There's plenty to keep the advanced tweaker happy, in other words. Like its forebear, the TW9100W is ISF-certified. It offers 'day' and 'night' modes for users, and calibration-friendly functions such as the ability to turn off one or more primary colours. Menus are minimised during adjustments so that their effects can be seen more clearly.

Aspect ratio selection gets a dedicated handset shortcut, while a 'user' button can

be assigned to the function of your choice (provided you're a regular 3D viewer, or like tweaking brightness). Other buttons toggle through 3D modes, picture presets, 'super-resolution' (crispening) and an effective auto-iris system.

The Active 3D glasses of the original TW9000W were triggered by infra-red control signals, but the TW9100W employs a Bluetooth-type radio system instead. A button on the newly-designed pairs of glasses (two are provided) initiates the necessary 'pairing' process. Once this has been achieved, the projector flashes an onscreen confirmation.

Charging their on-board lithium-ion cells involves plugging them into a USB port (e.g., a computer) for an hour or so. They'll then be good for quite a few hours of 3D viewing, but don't forget to engage the 'off' switch when they're not in use. Epson's glasses are comfortable to wear.

An alternative USB-charging source can be found in the WirelessHD transmitter, a development of the one supplied with the TW9000W. Use this to transmit HDMI video from your sources to the projector without cables. This upgraded version gives you five HDMI inputs in the name of convenience,

Another easy-to-use, comfortable handset from Epson



AV INFO

PRODUCT:
Full HD LCD 3D
projector

POSITION: Epson's
top-flight home
cinema projector. A
non-wireless model
is also available

PEERS:
Panasonic
PT-AT6000E;
JVC D-ILA X35





although its 60GHz digital radio link still relies on lossily-compressed video.

My recommendation is to use conventional HDMI for serious use, and the wireless link for less-exacting applications such as mobile computers, smartphones and so on. Interestingly, the transmitter has a loopthrough HDMI output for other devices, typically a secondary flatscreen TV.

In use

My audition started with 2D material, and the default settings, notably in 'cinema' mode, proved surprisingly good – we've come a long way from the disastrous 'showroom' presets of '90s tellies. That's not to say they can't be tweaked for the best possible results, and as a matter of course a basic calibration was carried out. Colour saturation, in particular, was noticeably improved.

I found the TW9000W fell short of the very best PJs in terms of black level, and this still largely holds true with the new model – even with the lamp in its default 'eco' setting that tames its brightness output. Yet for all this, the dynamic range and depth available is very impressive. Spinning a DVD copy of *Avengers Assemble* on my Cambridge Audio 751BD, I was pleasantly surprised by the amount of information plucked out from the film's darker scenes.

Also praiseworthy is the TW9100W's ability to produce lush and vivid colour. However, a close look at my 100in screen revealed minor convergence errors – the red was displaced to the left slightly, yielding a perceptible 'fringe'. Fortunately, an advanced setting (complete with crosshatch pattern) can deal with this.

With its Full HD resolution, hi-def sources are amply catered for; any fine detail here is

Use the Epson's side-mounted controls and lens rings to get the picture setup on your screen

conveyed accurately without the need for the rather artificial boost provided by Epson's 'super resolution' feature. A slight reduction in detail can be seen with fast-moving broadcast (1080i) material, but that's to be expected.

3D, especially after a fiddle with the Epson's depth control settings, is good. Although *The Amazing Spider-Man* is a bit of a 3D disappointment (considering its potential) the 'early warning system' setup by Spider-Man in the New York sewers makes for a worthy test scene. Its vibrating spider-threads are bestowed with lucid depth. Rather better use of 3D is made in *Prometheus*, particularly when 'proto-Ash' android David activates the hitherto-dead 'Engineer' ship's star-chart. With the Epson, the intricate glowing patterns and swirling circles that fill the cavernous interior can all be picked out in space. Crosstalk errors are minimal.

One annoying problem occurred during the review period. After switching from 3D to 2D viewing late one evening, the picture was stretched horizontally with cropping evident. Switching HDMI cables and inputs fixed the problem. However, I could only restore the errant HDMI input by carrying out a full reset, which deleted all my settings.

A solid option

So, the TW9100W builds on its predecessor with gentle performance enhancements and its more flexible wireless HD sender. Although it has some minor flaws, they're not insurmountable, especially considering it's sub-£3,000 ticket. And if you don't want the WiHD capability, you can get it for even less ■

ON THE MENU

→ The onscreen setup menus are very well-designed, with the clear structure and easy-to-read fonts encouraging users to explore the Epson's calibration features. Just don't expect much in the way of visual flair

SPECIFICATIONS

3D: Yes, Active with two pairs of glasses supplied

FULL HD: Yes, 1,920 x 1,080

CONNECTIONS: 2x HDMI v1.4; component; composite; D-Sub PC input; RS232; 12V trigger

BRIGHTNESS (CLAIMED): 2,400 ANSI Lumens

CONTRAST (CLAIMED): 320,000:1

DIMENSIONS: 466(w) x 140(h) x 395(d)mm

WEIGHT: 8.2kg

FEATURES: ISF-certified; 3x 0.74in. polysilicon active-matrix C2-Fine LCD panels; 230W UHE lamp (up to 5,000-hour life); 2.1 zoom lens (1.2m-2.5m for 40in 16:9 image; 5.4m-11.5m for 180in 16:9 image); vertical/horizontal lens shift; test pattern generator (including R, G and B-only modes for calibration); eco mode; keystone correction; provision for optional anamorphic lens; Super Resolution, five 2D picture modes, three 3D picture modes (inc THX-certified 2D/3D modes); auto-iris, gamma/skin-tone/enhanced sharpness/RGB offset and gain adjustments; three colour gamut choices, split-screen (side-by-side) display mode

HCC VERDICT



Epson EH-TW9100W

→ £2,900 Approx → www.epson.co.uk
→ Tel: 0871 4237766

HIGHS: Commendable all-round picture performance; in-depth calibration options; smart design

LOWS: Black levels not quite state-of-the-art; some convergence errors on review sample; wireless HDMI not a faultless standard

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

The New H1085

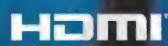
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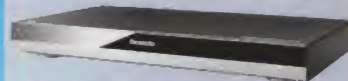
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Standard | MultiRegion

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A soundbar is a simple way to bring your flatscreen's audio performance up a notch. **Adrian Justins** plumbs in a quartet of contenders to see which one does it best



BOSE SOLO TV SOUND SYSTEM, £350

With no separate subwoofer, the well-built Bose is relying on its soundbar's drivers to do some heavy lifting



ORBITSOUND T9, £200

A smallscale solution with an integrated iPod dock, Orbitsound's T9 is the cheapest model in our group test



SAMSUNG HW-E450, £250

Among the features on offer here are a wireless subwoofer, USB media playback and HDMI connectivity



YAMAHA YHT-S401, £350

With its killer looks and long feature list, Yamaha's combi should be worthy of its £350 tag

One for telly addicts

Bose's single-box solution offers solid audio, but has a brazen attitude towards external gear



The Solo is so easy to use that its remote only offers four buttons

THE BOSE SOLO is more of a soundbox than a soundbar, having been designed by Bose to sit underneath your screen rather than in front of it. This cunning approach, where the TV stand is plonked on top of the unit, eliminates the problem of the soundbar encroaching on the screen (or the remote control receiver at the very least), which can happen with shallow stands and/or tall 'bars. From a distance the box looks like a PVR or deck, upon which one would never dream of placing a TV.

The pedestal design means that no separate subwoofer is deemed necessary, with the Solo able to accommodate four drivers (of unspecified size and power) and two rear-facing bass ports.

'There's no arguing about the step up in quality the Solo provides compared to your TV's speakers'

The Solo can manage screens with stands that fit on its surface dimensions of 508 x 260mm. Yet the suggested weight limit of 18kg means that the Solo cannot be used as a base for many screens, especially those over 40in. It can, of course, be placed on the shelf of an AV rack, which you might find aesthetically preferable anyway, given the somewhat bland design.

On the plus side, build quality is of Bose's typically high standard, but there's

disappointment to be found on the connections front. The Solo lacks HDMI provision, which, of course, means no hi-res surround sound decoding. Instead, audio is fed via the dual coaxial audio and digital optical audio inputs, or the stereo phonos for analogue action.

My thoughts of assigning Sky+ HD to the optical input, a Blu-ray deck to the coax and a games console to the phonos were short-lived when I discovered that only one input can be physically connected at any one time. The idea here is that the Solo is strictly intended to boost your TV's sound (using just one input). Want Bluetooth, AirPlay, USB streaming or even a mini-jack line in? Look elsewhere.

Keeping it simple

Bose's operating system is far from taxing. There's no LCD display, just a single LED that glows green when on, blinks when mute, blinks faster when you adjust the volume and goes red if there's an error. There are no selectable DSP modes, no tone control and no tools for tweaking the driver levels. Bose's argument is that the Solo just works, all you need to do is turn it on and set the volume. Hence the credit-card style remote control sports just four buttons: power, volume up, volume down and mute. Like the main unit, build quality is reassuringly solid. Bose's minimalist approach is arguably liberating but in the information age it can be a source of frustration.

Still, there's no arguing about the significant step up in quality the Solo provides compared with your flatscreen's speakers. The climatic battle scene of *The Chronicles of*

Narnia: Prince Caspian on Blu-ray is highly engaging, with real impact across the dynamic range and no shortage of low-end welly. *Band of Brothers*, meanwhile, has a strong sense of refinement that allows dialogue to be delivered with clarity.

The Solo lacks a bit of finesse, though: during the attack on the giant tree in *Avatar* it's hard to pick out individual effects during the melée, while sword clashes in *Narnia* are a little clipped. Dialogue, on the other hand, is a real strength, with the voice of *Mad Men*'s Don Draper rich and satisfying, and musically the Solo is a strong performer – Talking Heads' *Life During Wartime* (*Stop Making Sense*, DTS-HD MA Blu-ray) is presented with lively authority and tightness.

Bose's Solo therefore presents an extraordinarily simple answer to the question of thin TV audio, with a decent sonic performance – but its setup inflexibility makes it more of a bedroom solution than a living room one.

SPECIFICATIONS

DRIVE UNITS: Four (sizes not given), plus two bass ports

AMPLIFICATION: Not given

CONNECTIONS: Digital coaxial audio; digital optical audio; stereo phonos

DOLBY TRUEHD/DTS-HD MA: No

SEPARATE SUB: No

REMOTE CONTROL: Yes

DIMENSIONS: 525(w) x 74(h) x 309(d)mm

WEIGHT: 4.6kg

FEATURES: Dolby Digital and DTS decoding; tabletop mounting; volume adjustment; mute option

The best of both worlds?

With its integrated iPod dock, Orbitsound's soundbar/sub combi wants to be two things at once

FROM A STANDING start in 2008, Orbitsound has made quite an impact in the soundbar market, and the T9 reviewed here offers a more affordable and compact alternative to its well-received T12. It's aimed equally at movie enthusiasts seeking an affordable TV audio upgrade and, thanks to its top-mounted iPod dock, the generation of music fans who want somewhere to berth their iDevice.

The dock seems a little odd to me, though. With the advent of AirPlay and APTX-Bluetooth audio streaming, surely the writing is on the wall for physical docks, and its presence here does spoil the soundbar's aesthetics somewhat.

Dock aside, the T9 is an attractive, well-built shoebox-sized unit which is available in gloss black or white. Alone on a shelf it looks delightful, stick it on a stand in front of a TV where it's meant to go, and the look is more

jarring than a Metallica song on a Spice Girls CD. The soundbar's 300mm width is out of kilter with any decent-sized screen and there's a danger of it encroaching on your viewing thanks to the 90mm height.

A magnetically attached metal mesh cover detaches to reveal twin 2.5in full-range drivers and a 1in tweeter. The magnets ensure the cover reattaches with eager solidity. There are additional 2in mid-range drivers at either end of the bar, which play a major part in generating Orbitsound's 'spatial stereo' sound with music rather than a specific sweet spot. This works by mixing mid-frequency sound waves from the front-facing drivers with the spatial drivers at either end of the bar. It means that listeners don't have to sit opposite the soundbar, although chances are they will be when watching TV, especially movies.

Making space for bass

The T9 comes with a unremarkable-looking passive subwoofer, to which it is tethered using speaker wire and spring-clip terminals. A decent run of cable is supplied and the relatively compact dimensions of the sub provide greater flexibility in terms of placement than most. Cables are also supplied for all three sockets on the back of the soundbar, namely 3.5mm line-in, stereo phonos and an optical digital input. Controls comprise

the main on/off switch and a volume dial, which is replicated on the slimline remote. About half of the remote is given over to iPod control, with awkward lozenge-shaped buttons taking care of volume, treble and bass adjustment.

SPECIFICATIONS

DRIVE UNITS: 1 x 1in tweeter; 2 x 2.5in

mid-range; 2 x 2in full-range

AMPLIFICATION: 140W (80W subwoofer, 35W front, 25W side)

CONNECTIONS: Digital optical audio; stereo phonos; 3.5mm mini jack; 2 x composite video

DOLBY TRUEHD/DTS-HD MA: No

SEPARATE SUB: Yes, wired with 1 x 6.5in driver

REMOTE CONTROL: Yes

DIMENSIONS: 300(w) x 95(h) x 100(d)mm

WEIGHT: 1.8kg

FEATURES: Wired connection to subwoofer; iPod dock; volume and tone control; mute option; removable grille; cables supplied

There are no surround sound decoders built-in here and no LCD display. Visual information is limited to a small blue LED that glows when the unit is on and flashes when you adjust the volume.

Considering the soundbar's compact size, its performance is truly remarkable. The battle scene in *...Prince Caspian* has tremendous visceral impact as the subwoofer integrates well with the main unit. Dialogue has good clarity and the effects of fighting swordsmen – and, er, swordsmen – clang in to the room with wincing realism.

Switching sources often requires some adjustment of the bass and treble settings, a task made all the harder thanks to large jumps between each press of the button.

Also both bass and treble need to be on minimum in order to get the best out of dialogue-heavy material such as *Mad Men* and Sky Sports' news channel.

With music the 'spatial stereo' effect is certainly convincing from a room-filling point of view but the effect is more mono than stereo: my Talking Heads' track lacks a real sense of imaging.

Budget selection

While good at low to medium volume, Orbitsound's T9 doesn't like to be driven too hard. At least the £200 asking price goes some way to making up for that foible. Those on a tight budget, or on the hunt for an iPod dock with an extra trick up its sleeve, should give it an audition.

The Orbitsound T9 features a 6.5in subwoofer and an integrated iPod dock



Mass-market solution

Samsung may lack true audio heritage, but does that really matter in the soundbar world?

SAMSUNG'S HW-E450 IS a classic soundbar design with its electronics, full-range drivers and tweeters built in to the main 'bar, complemented by a wireless subwoofer. The soundbar itself is long and thin, meaning it can happily sit in front of a tabletop-mounted screen without affecting the viewing area, or fixed to a wall.

Looks-wise, the gloss black soundbar is smarter than Professor Brian Cox in a tuxedo, although there's no grille on it, which arguably makes the four full-range cones and dual tweeters visually distracting. The compact sub is ported and once you're happy it's made its first handshake with the soundbar (which should happen automatically) it can be hidden away. Powering on and off is also automatic and volume adjustment is made wirelessly via the remote control and soundbar. You might not want to hide it away, though – it looks

pretty stylish. Build quality of both parts of Samsung's package seems robust.

Dolby Digital and DTS decoding are part of the specification here but, despite the provision of HDMI, high-res audio decoding is not. So, if the HW-E450 receives a DTS-HD MA or TrueHD mix it simply resolves the lossy core. Digital optical audio and 3.5mm mini-jacks are present but there's no coaxial audio input.

Taking audio onboard

Unlike the Bose and Orbitound 'bars, multimedia features aren't ignored. The HW-E450 offers Bluetooth audio streaming and a USB socket compatible with MP3 and WMA files stored on thumbdrives. USB aside, the sockets are side-ways facing. Annoyingly, thickly braided HDMI cables won't fit in the space provided.

The main unit's LED display shows dark blue scrolling text and only becomes evident when the soundbar is switched on. This display is for status info only – it doesn't provide any way of selecting tracks on a USB-connected drive.

The remote control doesn't feature tone or EQ tweaks but other operations are straightforward, including source selection and engaging the so-called 3D mode. There are also six DSP modes, but a minor irritation is that you can scroll through them in one direction only.

Despite the lack of hi-res audio decoding the HW-E450 does a fine job of

SPECIFICATIONS

DRIVE UNITS: 4 x 2.5in full-range cones; 2 x 1in tweeters

AMPLIFICATION: 280W (80W x 2 + 120W subwoofer)

CONNECTIONS: HDMI input; HDMI output, digital optical audio input, 3.5mm line-in; USB

DOLBY TRUEHD/DTS-HD MA: No

SEPARATE SUB: Yes. 120W with 11in driver

REMOTE CONTROL: Yes

DIMENSIONS: 906(w) x 45(h) x 70(d)mm

WEIGHT: 1.94kg

FEATURES: Dolby Digital and DTS decoding; DSP Sound Modes (Music, News, Drama, Cinema, Sports, Game, Off); Smart Volume; 3D effect; DRC; audio sync, auto power link; MP3, WMA playback from USB; Bluetooth audio streaming; wireless connection to sub; Anynet+ (HDMI CEC); ARC (Audio Return Channel); wall-mountable

boosting your sonic satisfaction with Blu-ray material. *Band of Brothers* exudes finely controlled muscularity as tanks rumble, guns fire and mortar shells seemingly explode across the front of your living room. The output from the sizeable subwoofer is sometimes hard to regulate, often requiring volume adjustment when changing sources.

The HW-E450 equips itself well with music, too. The instruments and vocals on the Talking Heads' DTS disc are evenly mixed and there's good stereo imaging from the ultra-wide bar. Low bit-rate MP3 files don't sound hideous, either. With TV dramas the extra detail it picks out is profound. *Mad Men* is awash with atmospheric background sounds behind the enriched dialogue.

In all, this is a decent proposition – a few bonus features and a respectable price tag combining with a good all-round performance. >



The slim, wide soundbar connects wirelessly to the vertical-standing sub

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The entertainment hub

Yamaha's cute-looking YHT-S401 acts as an HDMI switcher and offers lossless audio



THE YHT-S401 SEEMINGLY has a lot going for it, including Yamaha's rich heritage in soundbars and a comprehensive specification that makes a mockery of the similarly-priced Bose Solo. The YHT-S401 boasts four HDMI sockets, a headphone jack, FM aerial input and a USB input. No simple booster for your TV's sonics here, we're talking HD audio decoding for Blu-ray discs and streaming of MP3 and WMA files from USB flash drives, plus iPod and smartphone compatibility. In a perfect world we'd also be talking about Bluetooth and AirPlay, but you don't need to be the taxman who studies Google's annual return to know you don't always get what you want.

The front-facing reflex port gives away Yamaha's unusual, inspired approach of combining the receiver and electronics with the subwoofer in one unit. This can be placed horizontally or vertically, although opting for the latter tends to make reading the LCD display a pain in the neck unless you're lying flat out on a sofa directly opposite.

The elegant-looking soundbar houses three drivers and has spring-clip terminals for connecting the speaker to the receiver using the supplied cable. The bar itself is height-adjustable between 79mm and 100mm and should sit in front of most screens without impinging on your viewing. A plastic receptor is provided for relaying TV remote control signals should you find the bar blocking the screen's IR receiver window. Neat. Wall-mounting is possible thanks to the supplied bracket.

As well as Dolby TrueHD and DTS-HD MA decoding there are six surround modes (Movies, Music, Sport, Games, TV and Standard) plus features such as dialogue and music enhancement, extended stereo, dynamic range control, tone control and 7.1-channel surround sound. The latter uses Yamaha's Air Surround Xtreme technology to bounce sound off the walls but there's no room calibration tool for optimising the effect.

The supplied remote control is a chunky number and while it makes basic input selection and volume control simple enough,

the section reserved for fine-tuning the system is cluttered and, without the aid of onscreen menus, a tad confusing. You can delve in to the menu system and re-set individual channel levels, assign names to inputs and set the HDMI control, including ARC.

Beast of bass

The most impressive aspect of the YHT-S401's performance is the subwoofer, which exhibits an almost effortless precision. With the roar of aircraft engines at the start of the tree destruction sequence in *Avatar* the Yamaha provides just the right amount of scale and vibration, such that you're almost unaware of it. Increase or decrease the volume and you appreciate how wonderfully this complements the main soundtrack.

Effects from the soundbar, such as whizzing mortar shells, gently falling ash and the Na'vi arrows hitting the gunships, are all delivered with startling accuracy and fidelity, but unlike some of Yamaha's more expensive sound projectors it's hard to feel any real sense of surround sound, just plenty of detail that's highly involving.

The Yamaha's real weakness, and a bit of a surprise, is that dialogue feels thin and compressed. It's particularly obvious with Richard Burton's narration on *War of the Worlds* (Super Audio CD) and *Mad Men*. Voices have clarity but lose much of their warmth and resonance. This high-end thinness also affects the 'bar's musical performance, with David Byrne's vocals sounding even more piercing than ever in *Life During Wartime*. This is a pity, as the sub does a sterling job with the bass and other instruments blend together well.

My advice, therefore, is to get a demo before shelling out £350 for this otherwise impressive product.

The 'bar's adjustable feet give you some setup flexibility



SPECIFICATIONS

DRIVE UNITS: 2 x 2in full-range; 1in x 4in oval centre cone

AMPLIFICATION: 250W (3 x 50W plus 100W sub)

CONNECTIONS: 3 x HDMI inputs; HDMI output; optical digital; coaxial digital; USB; stereo phono; headphone jack

DOLBY TRUEHD/DTS-HD MA: Yes

SEPARATE SUB: Yes. 100W, 5in cone woofer

REMOTE CONTROL: Yes

DIMENSIONS: 800(w) x 79-100(h) x 80(d)mm

WEIGHT: 1.5kg

FEATURES: Saran net grille; Air Surround Xtreme (7.1-channel surround sound); six DSP modes (Movies, Music, Sport, Games, TV, Standard); iPod/iPhone compatible; USB playback of MP3 and WAV files; Clear Voice mode; UniVolume; Music Enhancer; FM tuner with RDS; Subwoofer-integrated receiver can be used horizontally or vertically; HDMI supports 3D and ARC; HDMI CEC; wall-mountable

Final standings

SOUNDBARS REPRESENT THE perfect compromise between feeble flatscreen TV speakers and a full-on surround system. They come in all shapes and sizes, and vary widely in terms of compatibility and ease of use. While only one of this quartet is *au fait* with hi-res audio, they all have much greater power than the 20W of your average TV. Some of these models offer virtual surround sound and multimedia streaming – all of them will improve your sonic experience, and for not unreasonable money.

Each of these soundbars offers something different, so our ranking order may not match your own requirements. With that in mind, we've got the Orbitsound T9 bringing up the rear in fourth place. A stumpy unit which is awkward to place, its performance is by no means lacklustre, with a decent output for its size and quite potent subwoofer. However, overall the system demands a bit too much in the way of tonal adjustment from one source to another.

Next is the Bose Solo. Its unique pedestal design is something of a disadvantage as it limits the screens that can fit on top of it, and – as it's meant solely for use with a TV and not with a number of separate sources – its socketry, like its processing, is basic. It therefore feels poor value, although build quality is robust and it does a more than

decent job sonically despite not shipping with a separate sub.

Yamaha's YHT-S401 is easily the most sophisticated unit in terms of features, connections and processing. It cleverly integrates its electronics into the subwoofer and is the only model here with hi-res audio decoding. Performance-wise, you won't find a better woofer, but its less-than-satisfying dialogue reproduction and £350 price tag stop it getting an unreserved recommendation.

Samsung's HW-E450 therefore comes out on top of the pile. It might lack ultimate sonic sophistication but its performance is still commendable, and the splendid looks, diverse range of features and ease-of-use count in its favour. And that's before you even consider the price, which is typically £100 less than both the Bose and Yamaha ■

AUDIO ALTERNATIVE



Stepping up a level: While soundbars are ideal plug-n-play solutions, they don't deliver true 5.1 audio – and many aren't capable of handling lossless audio either. An alternative, if you're prepared to spend a bit more money, is to get a 'home cinema receiver with speakers' package from the likes of Onkyo or Yamaha. Different to an all-in-one system in that they don't provide disc playback, these marry an entry-level AVR to a 5.1 speaker array.

Feature flexibility: The main benefit here is the feature prowess of the receiver unit. The AVR in Onkyo's £350 HT-S3505 bundle, for example, offers four v1.4 HDMI inputs and one output, plus a wealth of digital audio and analogue video sockets, meaning you can hook up a BD player, TV, Sky box, games console and more. Other features include a built-in FM radio, Burr-Brown DACs, DSP modes and a compressed music optimiser. Meanwhile the supplied speakers are small enough to be installed without necessitating a major living room overhaul – and you don't have to wire up the surround channels if you don't want to.

HCC VERDICT



Bose Solo TV Sound System

→ £350 Approx

→ www.bose.co.uk

→ Tel: 0800 085 9021

HIGHS: Offers unusual placement option; straightforward setup; overall decent sound

LOWS: Bizarre connectivity restrictions; no hi-res processing; movie performance lacks finesse

Performance ★★★★★
Design ★★★★★
Features ★★★★★
Overall ★★★★★

HCC VERDICT



Orbitsound T9

→ £200 Approx

→ www.orbitsound.com

→ Tel: 08456 521 219

HIGHS: Impressive sound for its size; neat looking; integrated iPod dock; cheap solution

LOWS: Looks better on a shelf than a TV stand; no in-built audio decoders; bit underpowered

Performance ★★★★★
Design ★★★★★
Features ★★★★★
Overall ★★★★★

HCC VERDICT



Samsung HW-E450

→ £250 Approx

→ www.samsung.co.uk

→ Tel: 0870 2420 303

HIGHS: Wireless subwoofer; overall impressive clarity and power; multimedia features; HDMI input

LOWS: Sockets can't accept thickly braided cables; no hi-res audio; over-sensitive subwoofer

Performance ★★★★★
Design ★★★★★
Features ★★★★★
Overall ★★★★★

HCC VERDICT



Yamaha YHT-S401

→ £350 Approx

→ www.yamaha.co.uk

→ Tel: 01908 366700

HIGHS: Exquisite sub performance; excellent connectivity; hi-res audio decoding

LOWS: Thin-sounding dialogue; complex operating system; wired connection to receiver

Performance ★★★★★
Design ★★★★★
Features ★★★★★
Overall ★★★★★



Big, brooding and bloomin' brilliant

Not only does Oppo's flagship Blu-ray player deliver in terms of performance, it's also got **Richard Stevenson** wondering if he should just do away with his AV receiver altogether...

AV INFO

PRODUCT:
Universal Blu-ray
player with
audiophile tech

POSITION:
Oppo's latest
flagship

PEERS:
Denon DBT-3313;
Marantz UD7007;
Arcam BDP-300

A GRAND FOR a Blu-ray player in a home cinema market heading uncertainly towards download content? That may seem like a big ask, but manufacturer Oppo has a history of delivering the goods – so much so that other kit-makers have been using Oppo's core BD player architecture as the basis for their own machines. The BDP-105EU is the latest flagship player from the brand, adding a bunch of audiophile loveliness to the stellar picture processing already raved about in our previous review of the BDP-103EU.

The beating audio heart of the BDP-105EU has evolved from its BDP-95EU predecessor. This means not one but two 32bit, 8-channel Sabre DACs from ESS. One shunts decoded bitstream and PCM signals to the player's 7.1-channel analogue outputs, the other is dedicated to decoding two-channel stereo audio in balanced configuration and outputting the result to a pair of balanced XLR connections. Just to put that asking price into perspective, there are several dedicated hi-fi DACs on the market that use just one Sabre

DAC and cost twice as much as the Oppo. And don't spin Blu-rays either.

Where the BDP-105EU stands above its predecessor is that you can now access all this lush digital decoding technology with external sources. Yes, the BDP-105EU has inputs – and lots of them. High-res audio buffs get a true asynchronous USB input, which allows you to feed audio files up to 192kHz/24-bit directly from your PC, almost jitter-free. In addition, the BDP-105EU offers coaxial and optical digital audio inputs, two HDMI inputs, standard USB jacks and a host of networking features that make it a cutting-edge streamer.

I'd go as far as saying that the BDP-105EU is the most significant evolution of the Blu-ray player since the format was developed. Why? The Oppo has numerous inputs, can play almost every disc available, decode almost every significant audio format on the planet and offers variable output-level control via the handset's 'volume' keys to all its analogue outputs. You could therefore argue that with the BDP-105EU on the rack you don't need an

The supplied handset works well with the slick GUI





AVR or AV processor at all. Just hook up the BDP-105EU straight to a multichannel power amp and away you go. Even those with old, non-HDMI AVRs can benefit, too. As long as your receiver has 7.1 multichannel inputs then you can leverage the Oppo's features and HDMI switching/routing and simply use your AVR as speaker-driving muscle.

The BDP-105EU isn't just about filling the technology tick boxes, though. Oppo has also focused on construction, bringing in a revised chassis and passive cooling instead of the rather noisy fan of its previous players. The connection terminals, meanwhile, boast more chunky gold bling than a West Coast rapper.

Making magic with movies

In use, it's an absolute knockout. The player's Qdeo video chipset offers stunning picture performance in both 2D and 3D and it can scale any input to 4K resolution. Colours are rich yet natural, contrast is fabulous with great shadow detailing, and difficult diagonal pans pose no problem at all. If there are BD players out there that deliver a better picture than this, I am yet to test them.

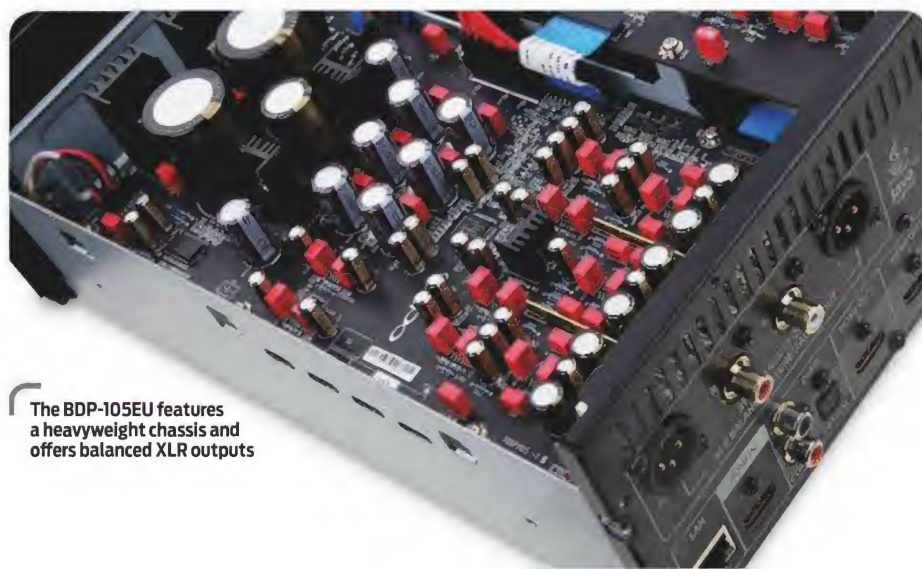
Elsewhere, disc loading is quick, the menus are clear and concise and its ability to run dual displays simultaneously will appeal to those with a TV and projector in the same room. And in split A/V mode, the full performance of the Qdeo processor is used to drive the primary HDMI output for direct connection to a display while the other output is dedicated to delivering audio straight to your AVR.

Using the Oppo as a processor connected directly to a power amplifier is a revelation. The setup for speaker size and distance is straightforward and the result is a crisp, precise sound with breathtaking dynamics. Soundtracks soar out of the speakers, clean and polished with fabulous detailing. The noise-floor is ridiculously low, making swells from quiet to loud simply stunning. The original ...*Terminator* movie sounds like it has been given a thorough makeover, with effects and dialogue stepping out of the mix even in the heat of the 80s action.

Switch to stereo sources and the BDP-105EU makes for a fabulous music player. Whether you are spinning up CDs and SACDs, leveraging high-res audio over the asynchronous USB input or streaming music over a network, the Oppo is clean and polished. Imagery is presented a mile wide and bass comes at you fast and tight. This is no chill-out session player, but if you like music presented with detail, passion and insight you would have to spend many multiples of the asking price of a dedicated CD player to match it.

Okay, when using the BDP-105EU as a processor you do forego some of the niceties of a dedicated AVR – such as RoomEQ and height/width channels – but that is about the only compromise. The only other minor niggle is the bonkers lack of an iOS remote control app, although there is a basic Android one. Oppo has told us that the iOS app is at the Apple approval stage right now, so may even be available by the time you read this.

In short, the BDP-105EU is an absolutely stunning machine from end to end, and one that evolves the BD player genre into a dedicated hub of digital entertainment ■



The BDP-105EU features a heavyweight chassis and offers balanced XLR outputs

ON THE MENU



→ Navigating the Oppo's feature set isn't too complicated thanks to its intuitive and responsive hi-res menus. Tablet/smartphone control was limited to Android devices at the time of writing, but an Apple iOS app should appear soon

SPECIFICATIONS

3D: Yes
UPSCALING: Yes, to 4K using Qdeo processor
MULTIREGION: No. Region B BD/R2 DVD
HDMI: yes 2 x v1.4 outputs (with ARC); 2 x v1.4 inputs (one front-mounted)
COMPONENT: No
MULTICHANNEL ANALOGUE: Yes, 7.1 and stereo phono; stereo balanced
DIGITAL AUDIO: Yes. Coaxial and optical inputs; coaxial and optical outputs
ETHERNET: Yes
BUILT IN WI-FI: No, but a USB Wi-Fi dongle is supplied
SACD/DVD-A: Yes/Yes
DOLBY TRUEHD/DTS-HD DECODING: Yes
DOLBY TRUEHD/DTS-HD BITSTREAM: Yes
DIMENSIONS: 430(w) x 123(h) x 311(d)mm
WEIGHT: 7.9kg
FEATURES: Asynchronous USB DAC input; digital volume on all analogue outputs, Gracenote look-up for all music inputs with cover art display; 3 x USB ports; Android App control; bespoke power supply; dedicated headphone amplifier; MHL compatibility; Roku streaming compatibility; DLNA media playback with DMP and DMR features; RS-232 control; IR port, fanless design

HCC VERDICT

Oppo BDP-105EU

→ £1,000 Approx → www.oppo-bluray.co.uk
 → Tel: 0845 060 9395

HIGHS: Incredible flexibility and features; cutting-edge networking; stunning video and audio performance

LOWS: No iOS remote app (as yet); no RoomEQ or height/width processing in analogue output mode

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

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Coping without catch-up

Who needs 4oD and ITV Player when you've got LOVEFiLM and Netflix instead?

Adrian Justins finds a lot to like about Samsung's twin-tuner Smart Freeview HD PVR



THE PRESENCE OF Humax's ground-breaking DTR-T1000 YouView box must be a worry to the likes of Samsung – it makes the STB-E7500 reviewed here seem a little bit old-fashioned. It's a traditional PVR with on-demand TV excluded from the EPG, and with terrestrial catch-up services failing to extend beyond the BBC iPlayer. But it has Smart TV up its sleeve...

Samsung and Smart TV go together like Smith and Wesson, and the STB-E7500 is a neat little buddy box of tricks, packing plenty of online streaming content (including Netflix, Acetrax, LOVEFiLM and the BFI Player), plus a web browser and the ability to get cosy with multimedia files (including FLAC) stored on a home network or from USB. Wi-Fi is built in.

The unit itself has been designed and built to a high standard with a sleek glossy finish. The fascia is bereft of buttons and houses a small LED panel, which isn't the most helpful, showing the time by default. On top are touch-sensitive controls for basic navigation and recording. The remote control doesn't match the main unit for attractiveness, yet

feels nice in the hand and is solidly built. Oversized buttons mean the layout is cluttered and some, such as the all-important record one, are tricky to locate.

The STB-E7500's operating system is classic Samsung – slick and modern. The main home page

offers a neat array of icons representing the box's five main functions: the Smart Hub; recordings and multimedia files; TV channels; recording schedules and general settings.

Under the hood is a sophisticated operating system containing a few surprises for a PVR including colour space options, HDMI Deep Color and the ability to output video over HDMI at 24fps. There's also BD Wise for optimising the output when using a compatible screen and a PCM/bitstream audio output option. You can't help but feel that inside the STB-E7500 is a Blu-ray deck trying to get out.

With its live TV window the EPG feels a little cramped, and it only shows the schedules for five channels at a time. Selecting a show gives you options for series linking, but the box doesn't tell you if an HD version of an SD broadcast is available. And, when you select a live broadcast on another channel, it exits the EPG rather than giving you the option of further browsing. Annoying. A brownie point is redeemed by the fact you can watch one channel whilst recording two others (multiplex allocation allowing).

The STB-E7500 does everything you'd expect in the way of recording and editing, including timeshifting, splitting and partial deletion of recordings. Image quality, both live and recorded, is excellent and the Samsung makes a good fist of sharpening and de-noising ropier Freeview channels.

Overall, this is well-featured and a pleasure to use – just a little short on catch-up talents ■

SPECIFICATIONS

HDD: 500GB

TUNER: 2 x Freeview HD

CONNECTIONS: HDMI v1.4; optical audio; Ethernet; stereo phono; 2 x USB; composite video; RF loopthrough; CI slot

DIMENSIONS: 330(w) x 52(h) x 270(d)mm

WEIGHT: 2kg

FEATURES: Built-in Wi-Fi; AllShare Play; Wi-Fi Direct; web browser; 2D-3D converter; Smart Hub; video-on-demand services (including YouTube, Dailymotion, BBC iPlayer, Muzu, Acetrax, Netflix, LOVEFiLM, Box Office 365, BFI Player, Ocean, PictureBox, HuffPost, Flux Player, Frequency, TM2, IPWorld TV, Crunchyroll, WOW TV, BBC News, Viewster and more); USB playback (MP3, FLAC, WMA, MPEG2/4, DivX, DivX HD, MKV, WMV, MOV, Xvid, JPEG, BMP, PNG, MPO); simultaneous recording and playback; title divide; partial delete; 24fps output; HDMI Deep Color

HCC VERDICT

Samsung STB-E7500

→ £200 Approx → www.samsung.co.uk

→ Tel: 0870 2420 303

HIGHS: Elegant design; slick interface; leading Smart TV offering; trickplay features

LOWS: Cluttered remote control; unhelpful LED display window; EPG could be improved

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

AV INFO

PRODUCT:
Freeview HD PVR

POSITION:
Has a 1TB bigger brother

PEERS:
Humax DTR-T1000;
Panasonic
DMR-HW220;
EchoStar HDT-610R

When worlds collide

Adam Rayner tries to find the limits of JL Audio's entry-level cinema woofer – and discovers that the brand's in-car heritage pays dividends in the home

REGULAR READERS WILL know that we've already reviewed the big brother of this subwoofer, the JL Audio Fathom F212. That product has two mighty 12in drivers and a 3,000W amplifier. This, the Fathom F110 (for 'one driver, 10in') only uses 900W.

I say 'only' as JL Audio are not scared to use bigger power supplies. Its history is in the car audio world where sound quality competitions demand massive reserves. In fact, its flagship Gotham home cinema sub may never come to Europe as the amplifier on the back puts out so much RF it'd never get EU CE marking. The Fathom F110 is, however, approved in Europe, despite being as European as a deep suthen' clam chowder.

The £2,000 ticket is an eye-opener but do consider the amp power. Then, look at the pro-grade microphone, cracking auto-EQ system, easy operation and high-end build quality. With JL Audio's home cinema gear, you're benefitting from a whole culture of low-end love, a two-decade drive to excellence. And, finally, there's the driver...

You won't be able to fathom [*nice pun – Ed*] how the FCAM™ (Floating Cone Attach Method) polypropylene cone is screwed in. The cone is itself patented and JL Audio's website goes deeper into subwoofer tech than most readers will want to know. It's heavy-duty and provides up to four inches of excursion – in the 'Peers' section of our AV Info box (below) I've included a near-£4K woofer with an 18in driver, as you will need that to equal the F110's air-pushing low-frequency prowess.

AV INFO

PRODUCT:
High-end 10in
cinema subwoofer

POSITION:
The entry level for
JL Audio home
subwoofers

PEERS:
MJ Acoustics
MJ 800;
Totem Thunder;
Paradigm Sub 1

Ready to rumble

The automatic room optimisation system is a one-button-and-sit-there-being-a-mic-stand thing. It shakes your room and then you are green to go.



For nostalgia's sake I tested this with a track I once used to try to hurt a Paradigm SUB2, called *More Bass, More Boom, More Bottom* – just to hear it glide accurately along to the best audiophile CD ever made – and then revisited the film *Limitless* on Blu-ray so I could compare it directly with the Fathom F212.

While this smaller product naturally has a lesser degree of perceived scale and size, the Fathom F110 is like a 10in active sub on steroids. The cone goes in and out more. It goes faster. It stops more quickly and with its powerful amplifier can switch from a mere loud rumble to a massive wavefront of bass in the blink of any eye.

The door being beaten off the frame of the fortress apartment at the start of *Limitless* came with a very large impact and a tremendously deep under-rumble. And the times in the narrative when the protagonist is under the influence of the performance-enhancing drug were accompanied by the deep, rich bass that is intended to evoke disorientation. The F110 literally wobbles the air around you, and reaches so far down it could wake the dead.

Small, cute and pretty, but with terrifying potency when provoked, the performance here is worthy of the price tag. If you can afford it, this is American bass at its most rich, opulent, controlled and yet brash ■

SPECIFICATIONS

DRIVE UNIT: 1 x 10in W7 FCAM™ (Floating Cone Attach Method) Polypropylene W-Cone, with 'overall surround', 'elevated frame cooling' and 'radially cross drilled pole piece'

ENCLOSURE: Sealed, with driver, mic socket and control panel hidden under the front grille

FREQUENCY RESPONSE: 27Hz-110Hz
+/-1.5dB; -3dB @25Hz; -10dB @ 19Hz

ON-BOARD POWER: 900W

REMOTE CONTROL: No

DIMENSIONS: 328(w) x 397(h) x 439(d)mm

WEIGHT: 30kg

CONNECTIONS: Phono mono/stereo input; balanced stereo XLR inputs; balanced XLR output for feeding to slave units

HCC VERDICT

JL Audio F110

→ £2,300 Approx → www.av-techsolutions.co.uk

→ Tel: 07974 735 998

HIGHS: Neatly designed and solidly built; easy to operate; efficient EQ system; powerful, poised performance

LOWS: Hand-built in the USA so unavoidably costly; only available in black...

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

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PANASONIC DMP-BDT220 3D BLU-RAY PLAYER
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ALSO AVAILABLE: PANASONIC DMP-BDT120



PANASONIC DMP-BDT500 3D BLU-RAY PLAYER
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ALSO AVAILABLE: PANASONIC DMP-BDT320



SONY BDP-S790 3D BLU-RAY PLAYER
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ALSO AVAILABLE: PIONEER SC-LX86 **NEW MODEL**



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ALSO AVAILABLE: YAMAHA RX-V373 & RX-V473



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The MT-50 system twins M-1 speakers with the power and control of an ASW608 subwoofer

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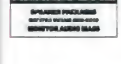
KEF T205 5.1 SPEAKER PACKAGE

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KEF R100 5.1 SPEAKER PACKAGE

Comprises four R100 speakers, an R200C centre speaker and R400B active subwoofer



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BRONZE BX2 5.1



APEX 5.1

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CANTON MOVIE 70 SPEAKER PACKAGE

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SOUND & VISION

Stand and deliver



John Archer is so fed up with the limited audio performance of modern flatscreens that he demanded a chance to audition Loewe's electrostatic speakers. Now he wants to keep them

AV INFO

PRODUCT: Floorstanding electrostatic speaker array

POSITION: Loewe's top-of-the-range audio package

PEERS: Martin Logan EM-ESL; Bang & Olufsen Beo-Lab

FOR MANY PEOPLE in the UK, Loewe remains either a brand they haven't heard of at all (in which case, you pronounce it 'Lerver'!), or a German designer TV brand. It's not a marque generally associated with audio.

In truth, though, Loewe is increasingly an AV 'ecosystem' brand, accessorising its TVs with both customisable design options (including furniture) and a range of audio accessories.

To prove the point, Loewe's lavished us with its Individual Sound Stand Speaker SL package. But, so we could enjoy the full Loewe AV experience, the speakers were shipped with a 46in Individual TV, a £300 'bar-style' centre speaker that attaches to the TV/stand (and

part of the system price quoted here), and Loewe's £765 BluTech Vision Blu-ray player. And the whole lot was put together by a trained Loewe installer, as it would be for any normal consumer. I made him a cup of tea – you don't have to.

Old friends reunited

The TV and Blu-ray player have both been around a while now – and you can tell.

The former is gorgeously built with its glass front, customisable side panel 'accents', and, in our configuration, spectacular chrome pole floor stand. However, its large bezel and bulky rear both fly in the face of the current trend for

ultra-slim designs. Fed HD material, detailing is strong with HD, the core contrast performance is bold, colours are nuanced and motion is solid. Recordings to its built-in DR+ HDD are immaculate, too. However, the picture can look slightly processed with Loewe's Image+ system in play, but a bit 'routine' in colour and contrast terms without it. Also, there's some backlight inconsistency in the screen's corners and 3D images are prone to crosstalk.

As for the Blu-ray player, it looks oversized and curiously bland by Loewe's standards, and emits alarming amounts of running noise when accessing discs. It also doesn't appear to perform significantly better than typical Sony or Panasonic BD decks – not ideal considering its price tag.

'The award-winning surround sound detailing of Se7en is delivered with exceptional precision'

But it's the Sound Stand Speaker SL package that I'm interested in here, and first impressions are superb. The left, right and rear floorstanders rise well over a metre high, but are only 1.9cm deep – considerably slimmer than the TV they accompany and a devilishly handsome addition to your décor.

Their sleek lines are made possible because the speakers are electrostatic, generating sound by exciting a thin membrane suspended in an electrostatic field. They lean gently backwards but stand steadily on a glinting metal plinth. They're so stunning, they make their £2K-a-pair price look rather reasonable – especially when you consider how expensive electrostatic speakers have historically been.

Each speaker needs to be plugged in to your mains to charge the electrostatic panel. Yet these are not active designs. Rather, 500W of the Individual Highline subwoofer's power is split for each surround channel. The rest of the chrome-finished woofer's juice drives its active cone, joined by two passive radiators. Onboard controls include crossover and bass 'intensity'.



I had concerns that the non-electrostatic centre speaker beneath the TV wouldn't match the rest of the speakers with either the tone or size of its sound. For the most part, though, this worry proved unfounded. The centre's wide dynamic range, unexpectedly open sound and ability to produce both dialogue authority and harshness-free treble details actually integrate remarkably well with the rest of the soundstage.

The centre sounds marginally harder than the electrostatics during loud action scenes, but even under extreme strain it didn't distort or fall out of line with its skinnier colleagues.

It's the electrostatics that steal the show, though. The first thing that struck me is how warm and well-rounded they sound; there's not a trace of harshness with even really high, tricky trebles, and no bass bloom or boxiness. They don't plunge the depths (Loewe rates them down to 150Hz), but the impressively powerful and well-timed subwoofer picks up the bass slack.

This bass handover is superbly managed, so long as you're careful with the sub's crossover frequency setting and don't leave a glaring 'gap' between the sub's bass and the electrostatics' lowest register.

The combination of clarity and power delivered by the Stand Speaker SLs is remarkable, too. They deliver the award-winning surround sound detailing of *Se7en* with exceptional precision, reproducing the most tiny, subtle effect beautifully while also creating an uncanny sense of space. Loewe's 'enclosures' make it appear as if there's a huge audio space beyond – even behind – the physical space they occupy, which does wonders in making the film's soundstage more convincing.

In fact, the more detailed and subtle a movie mix, the more these electrostatic speakers impress. This isn't to say they can't go rambunctious when required; they can. But you don't get quite such a lovely tone or as much detail when the going gets raucous.

This situation carries over into the system's music performance. With relatively simple, spartan, pop or classical music it sounds gorgeous; hi-fi in a way some other home cinema speakers only dream of. Yet with the sort of rock 'n' roll preferred by this magazine's editor it's marginally less comfortable; a touch too refined, maybe. Overall, though, the Stand Speaker SL system impresses as much with music as it does with movies.

If you're looking to immerse yourself in the Loewe ecosystem – perhaps with one of the forthcoming Individual ID screens – these speakers have to be auditioned. They combine form and function to spectacularly potent effect. Luxurious looks, luscious sound ■

The Individual Highline sub drives the speakers, too – no AVR is needed in Loewe-land!

SPECIFICATIONS

STAND SPEAKER SL

DRIVE UNITS: Two-way inverse electrostatic
ENCLOSURE: Powered membrane
FREQUENCY RESPONSE: 150Hz-40kHz
SENSITIVITY: N/A
POWER HANDLING: 50-100W
DIMENSIONS: 195(w) x 1125(h) x 258(d)mm
WEIGHT: 10kg

STEREOSPEAKER

DRIVE UNITS: 8 x full-range speakers (size unspecified)
ENCLOSURE: Bass reflex
FREQUENCY RESPONSE: 90Hz-18kHz
SENSITIVITY: N/A
POWER HANDLING: 25-50W
DIMENSIONS: 1,048(w) x 70(h) x 56(d)mm
WEIGHT: 2.8kg

SUBWOOFER

DRIVE UNITS: 1 x 10in active; 2 x 10in passive
ENCLOSURE: Sealed
FREQUENCY RESPONSE: 28Hz-250Hz
ON-BOARD POWER: 300W
REMOTE CONTROL: No
DIMENSIONS: 430(w) x 345(h) x 430(d)mm
WEIGHT: 24kg
CONNECTIONS: Speaker terminals (inc banana plug support) for surround speakers; link cable from TV; line-level

HCC VERDICT

Loewe Individual Sound Stand Speaker SL

→ £5,800 Approx → www.loewe.tv/uk

→ Tel: 0800 2255639

HIGHS: Crystal clear, spacious sound quality; accomplished subwoofer; gorgeous design and build

LOWS: Centre channel not quite as adept; you'll need to find a few power sockets

Performance ★★★★★

Design ★★★★★

Features ★★★★★

Overall ★★★★★

Performance without the price

The LG BP420 Blu-ray player is priced to shift boxes. **Steve May** approves

THE GLOSSY, ANGULAR design may give little away – and we're not sure about the raised fascia buttons – but LG's pint-sized BP420 transpires to be a multi-talented Blu-ray deck, Smart TV gateway and versatile media player. For the asking price, it's a remarkable home entertainment bargain.

As a disc-spinner, the deck delivers. Loading speeds, especially with heavy Java content, are good. The Bond classic *Goldfinger* goes from tray to onscreen menu in just 48s, while a simple Java-lite disc takes 34s. HD image quality is precise and vibrant. The player does a decent enough job with standard-def DVDs too, upscaling them to 1080p without invoking any unwanted artefacts.

Getting Smart

Once online, LG's Smart TV portal opens the door to copious catch-up and IPTV, including BBC iPlayer, Netflix, LOVEFILM, YouTube and more. The player is pleasing enough to drive,



LG's BP420 is a Blu-ray bargain

with clean, intuitive menus. For those looking to replace old DVD decks and connect a TV to the 'net, it's an instant upgrade solution.

The BP420 is DLNA compliant, and offers excellent multimedia file support both locally and across a LAN. All the popular codecs and wrappers are supported, including AVI, MOV, MKV, MP4, MP3, WMA, WAV and AAC/M4A. You can even play FLAC from USB media (the USB input is hidden on the front fascia behind a rubber bung).

The deck's online attractions aren't limited to streaming TV – there's a wide variety of

apps to download too, which include everything from internet radio services (good) to casual games (bad) and specialised news. Wi-Fi isn't provided, though, so you'll need to wire accordingly.

HCC VERDICT

LG BP420 → £100

Overall ★★★★★

PHILIPS FIDELIO X1 → Approx £270

Philips' can-opener

The open-backed Fidelio X1s show Philips isn't just a TV specialist, says **Mark Craven**

PHILIPS' FIDELIO X1 headphones impress from the very outset, sporting a luxurious design that melds leather, aluminium and plastic together in a dashing ensemble, and chunky, velour-coated ear pads that look and feel comfortable enough to take a nap on. Completing the package is a three-metre fabric-coated cable, which is terminated in a 6.3mm jack – a 3.5mm adaptor is supplied.

The X1s are open-backed, immediately making them unsuitable for use in public places. Crafted for domestic connoisseurs, Philips' headphones allow a surprising amount of sound

leakage – not a problem when listening alone, but not ideal if there's someone else in the same room.

Release some pressure

The open-back design has performance benefits, though. Philips claims it eliminates air pressure build-up behind the sizeable 50mm neodymium driver in each ear cup, increasing its ability to move and 'smoothing' high-frequency response. In use, this results in a spacious-feeling soundstage, with detail galore. The Police's *Walking on the Moon* came across with

ethereal beauty; the flange-effected guitars and snare drum rimshots delicately realised in a wide stereo image.

Even better, the bass end here isn't overblown. Some headphones go berserk when it comes to the low-end, with manufacturers aiming to impress more with a thump of thunder than a well-balanced sound. The X1s achieve the latter, with a decent, tight low-frequency response that doesn't out-stay its welcome.

So, while these aren't the cheapest option around, they're easily recommended if you like to listen in comfort and with quality. And alone.



The ear-cups are velour-coated and fit snugly

HCC VERDICT

Philips Fidelio X1 → £270

Overall ★★★★★

xeo

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Feedback

Got an axe to grind? Want to comment on current technology? Want to share your knowledge with our readers? **HCC** is here to help

TVs can sound better!

I write as a former domestic radio designer who also had a hand in TV sound design – many years ago though! I'm writing this letter on a 22in iMac, which has a case thickness of 32mm and produces quite acceptable sound for everyday use when watching iPlayer. This shows that it is entirely possible to produce equivalent sound on even a 19in TV.

I am sure that a large part of the problem of thin, tinny sound on televisions is that very cheap loudspeakers are used, perhaps not much more than glorified headphone drivers! I recently installed a cheapish Panasonic soundbar for a relative and this had very small speakers, small enough, I believe, to fit a TV cabinet. This unit produced good domestic sound although the bass was a bit overdone and not



Philips' new Moth Eye TV houses speakers in its desktop stand

★ STAR LETTER...

Why are disc redemption offers so complicated?

I would like to say how p#?*ed off I am with Panasonic over its free films offer. I bought the DMP-BDT120 and assumed *Avatar* and *Titanic* were shipped in the box with the Blu-ray player, but, no, you have to claim them via the internet.

Now I'm a simple guy. I love DVDs and with the spare money I managed to save I bought a Blu-ray player. For all things internet I have to use my local library – I simply cannot afford my own laptop and internet subscription, and to take up Panasonic's offer would be so involved it would not be worth my while.

A while ago Blockbuster did an offer of six films with a Sony player – these were

in the box with the deck. Now I see Blockbuster have the same internet offer as Panasonic on the new ...*Spider-Man* film. Bring back the old days when things were a lot less complicated.

PS: If your wondering, I managed to steal five minutes on a mate's computer.
Dave, via email

Mark Craven replies: Ah, well, a lot of things were a lot less complicated back in the old days. But everything changing every

five minutes is one of the joys of being a home cinema fan, isn't it? Maybe not.

We're not entirely sure why Panasonic adopted its redemption policy instead of simply bundling the Blu-ray discs. Packaging costs presumably come into it.

We share your pain, though, so have a free *Resident Evil: Retribution* Blu-ray on us. You'll need to send us your address, though, so we can post it out to you. You'd better persuade your mate to let you use his internet connection again...

WINNER: Star letter-writer Dave has bagged himself a copy of Paul WS Anderson's 3D zombie actioner *Resident Evil: Retribution* on Blu-ray. It's available on Blu-ray 3D, Blu-ray and DVD from February 4th 2013, courtesy of Sony Pictures Home Entertainment. Check out review of the BD on page 98.



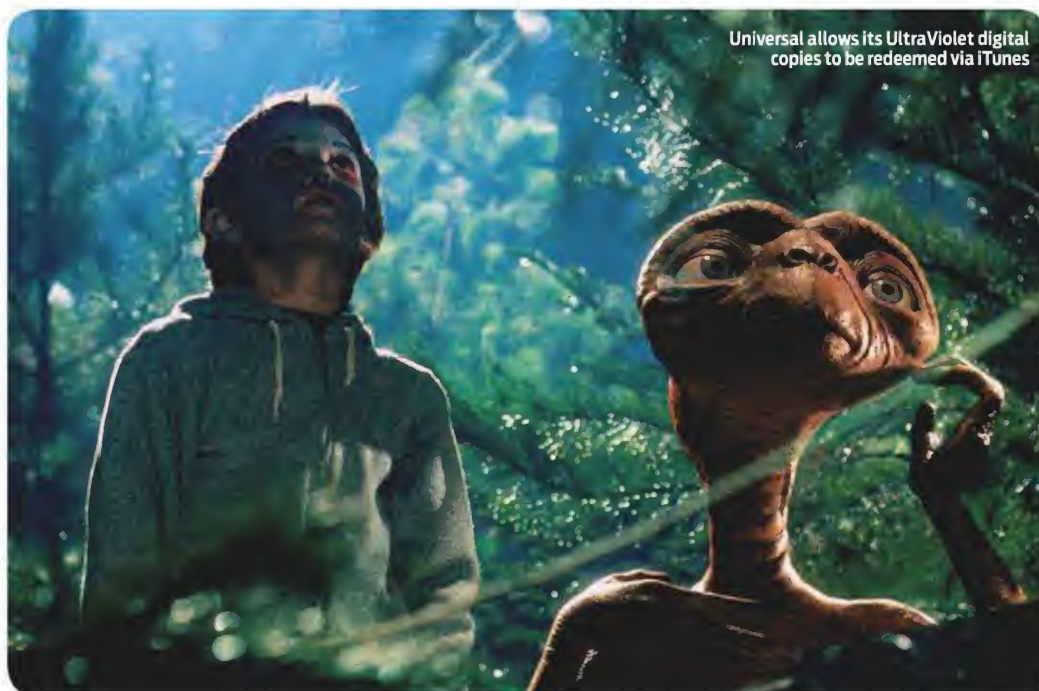
reducible to acceptable levels. At this rate it would be very easy to incorporate a soundbar-type enclosure as an integral part of the cabinet moulding with only a small percentage increase in the selling price. It could also be possible to sell a matching affordable sub-woofer.

As for the drive for thinner and thinner sets – I wonder how many are actually wall-mounted, particularly in the smaller sizes? I quite often hear complaints from first-time flatscreen buyers that the sets are too narrow to place on top the nick-nacks that formerly graced their old tube set. Why not aim for a minimum thickness of, say, 100mm? This would give adequate space for the aforesaid nick-nacks and space for a decent pair of speakers. I would have a couple of cheap tweeters facing front and a decent pair for the bass at the rear. Any company worth its salt should be able to design speakers for a good sound; we could forty years ago when small speakers were needed for small portable radios – indeed, I use a small Sony personal portable with a tiny speaker which gives very good, balanced audio. There is no excuse for TV manufacturers. If there is, let them reply!

John Collins, MIET, Sussex

Mark Craven replies: Thanks for an interesting letter John. You're certainly right that small drivers can be used to produce excellent audio – plenty of sub/sat systems manage it – but even you admit that there would be an increase in the overall cost of the TV, which isn't what many manufacturers are looking for. Likewise, a dedicated soundbar will have more potent amplification – which is another cost increase.

The soundbar market is healthy, with many decent-priced options available. Considering the low price of many flatscreen TVs, it's probably cheaper now to get a large display and a soundbar than it was to just get a TV a few years ago. And, of course, our recommendation is always to get a 5.1 speaker setup if you can afford one.



We don't agree with you regarding nick-nacks, though. They belong on the mantle piece, not your AV hardware!

Ultraviolet sucks

I have recently experienced UltraViolet digital copies via *Jaws*, *E.T.: The Extra Terrestrial* and *The Dark Knight Rises* Blu-ray discs, and I have to say that I am far from impressed with the way it works. Given that UltraViolet is supposed to be a system endorsed and fully supported by all the major film distribution companies, it's implementation is awful. It is ill-thought out and difficult to use. I know the studios still consider it early days, but it's been around for over a year now.

Going to www.ultraviolet.com tells you about the service, but doesn't tell you how you're supposed to redeem titles or actually use it.

I created an UltraViolet account. I then expected to redeem the code, but there was no option to redeem any codes. There was talk of a digital locker, which I was informed was empty...

It appears that each disc that you buy has its own different code redemption website site. Why?

You're then invited to sign up to something called Flixster (whatever that is) as well. Hang on, I've just signed up to use UltraViolet.

Jaws and *E.T.* (both Universal titles) give you the option of bypassing this nonsense and just let you redeem the code through iTunes instead. This method is easy and works perfectly well for people who have an Apple device, but attempting to redeem the code for *The Dark Knight Rises* via iTunes returns the message that the code is not valid.

I have contacted UltraViolet support, but they just state that 'iTunes codes are not available from us for this particular offer'. They are available for other UltraViolet titles, but not this one. How very consistent.

I fear that unless Hollywood gets its act together, UltraViolet will be a complete failure and filed under lost opportunities.

I buy movies on Blu-ray all the time. I don't want to have to keep registering on different platforms to view the digital copy, and I don't want Flixster to use my registration information to try to up-sell me other products I'm not interested in.

Of course, all of this mess could have been totally avoided. A simple-to-use Blu-ray disc digital copy standard should have been implemented that enabled consumers to register just once for a digital account, and then using the in-built capability of any internet-connected Blu-ray player

(or PC with attached Blu-ray drive), a disc could be scanned to ensure it is a genuine purchase.

Once verified as genuine, a digital ticket could be stored in the consumer's digital account, giving them the right to stream or download the movie to a number of portable devices. If there were any concerns regarding piracy or abuse, then the ticket could be revoked until the disc was rescanned.

This would be easy to implement, avoids the whole mess with redemption codes, and would have given people the opportunity to play any movie they own, without it being tied to a handful of the latest discs.

A simple method of de-registering a title (removing its ticket from the consumer's account) should also be provided, so the digital copy, along with the disc, can be used second-hand.

I have no problem with DRM – people scream about their freedom to copy, but I understand the need for studios to protect their works. However, the system needs to be simple and straightforward to use, and implemented in a sensible way. James Willmott, via email

Mark Craven replies: I think I just heard the sound of a nail being hit on the head, James!

I expect your experience of UltraViolet is shared by many of the other people who have given the year-old service a go. It certainly isn't, as you suggest, as streamlined and as straightforward as it could be, especially if the studios are serious about tackling piracy.

Kuro rapid-response unit

Well, I read Mark Craven's reply to Dean Smyth of Horley with bemusement regarding an upgrade for his 42in Kuro.

I happened to be fortunate enough to have purchased one of the last Kuros on sale about four years ago and the picture on it now is as stunning as it was the day I bought it. With the exception of Panasonic's range-topping plasmas, the Kuros are still light years ahead of all of the vast majority of LED and LCD sets for pure picture processing or picture quality. Pioneer was so far ahead of the game in plasma construction and R&D that only now, four years on, are Panasonic's high-end plasmas a match for the Kuro.

Mark Craven states that the Kuros are no longer cutting-edge in terms of technology or smart technology. My Kuro can't stream movies – that's fine, I use my Sky HD box to access crystal-clear HD. I don't have 3D. Do I really want to watch movies with all the cross-talk issues, annoying glasses and the truly abysmal selection of movies that have been rendered in 3D? No thanks! Most of the so-called smart TVs – or, as Mark Craven would say, televisions with cutting-edge tech – are gimmicks that just cover up a multitude of flaws inherent in a lot of the current crop.

My point is amply proved in the review of Samsung's 75in top-of-the-line LED set. Your reviewer awards this set with a 'Best Buy' badge, yet it costs a whopping eight thousand euros, has crosstalk issues, and, if you are not sitting in front of it, the blacks become grey and the picture loses resolution. Like all the latest LCDs and LED sets, it comes packed to the gills with gimmicks like voice/gesture control – or, as Mr. Craven would say, cutting-edge tech.

Mark Craven also states the bezel on the Kuro is big enough to eat your dinner off. Well if your reviewer actually had a close look at any Kuro he would realise the styling and build quality surpasses anything out there today. Most of the new sets coming onto the market now – with the exception of the Panasonics – are very poorly constructed.

So my advice to Dean Smyth of Horley is that unless he is willing to shell out about three thousand pounds for one of Panasonic's range-topping VT50s, he should hang onto his magnificent Kuro because if he swapped it for any of the current crop of LED TVs he would surely be downgrading to an inferior television.

Joe Lacey, Dublin

Mark Craven replies: Well, I bet you're glad you got that off your chest. There's nothing like the passion of a Kuro fan.



Without reprinting my entire answer to Dean's initial letter, I would like to point out that I suggested he 'might want to get a demo of a top-of-the-range LED TV' to judge the picture quality for himself. He was also advised to check out Panasonic's current plasmas. I didn't tell him to throw his Kuro in the skip and buy a budget LCD TV.

Secondly, you may have no interest in 3D, Smart TV content or media streaming around a network, but that doesn't mean everyone else shares your views.

The 75in Samsung you mention is a very good TV. It's not perfect (hence the four-star rating), but it's a monster of a TV capable of superb HD images. And the 'whopping eight thousand euro' price tag is not much more than the much smaller 60in Pioneer KRP600A cost four years ago.

Styling is, of course, a personal taste, but some people will prefer the slimmed-down bezels of modern TVs over the Chock-A-Block look of Pioneer's plasmas. Likewise, some people would argue that not all 3D movies are truly abysmal – *Prometheus* and *Hugo* being two good examples.

A multiregion player is a good addition to any home cinema setup

but locked to Region A. Then I considered splashing out £20 on *Prometheus* – 'Region Free' this time – but again stopped short when I saw the identical disc selling for \$14.99 in the US. And what about some of those highly rated Criterion releases of Kurosawa classics? Forget it, they're also locked to Region A.

Consumers will always demand a fair choice. The studios would do well to offer a larger selection of Blu-rays at a more competitive price or else the only companies who will be celebrating this Christmas are the ones who import US discs, modify Blu-ray players to be multiregion or sell software to circumvent the region code.

Bah, humbug.
Jon Mitchell, Twickenham

Anton van Beek replies: Well said, Jon – apart from the fact your letter missed our editorial deadline so has been printed after Christmas. I've now got a multiregion BD deck in my system and it's made the world of difference – see my column on p86 to find out more ■



UK BDs are too expensive

I think movies make nice Christmas presents but this year I just can't bring myself to buy some of the latest UK Blu-ray releases. For example, I nearly spent £16 for the original version of *Total Recall*, recently re-mastered by Lionsgate/Studio Canal, until I saw the same disc selling as a US import for £5.56

Smart TV: cutting-edge tech, but certainly not for everyone

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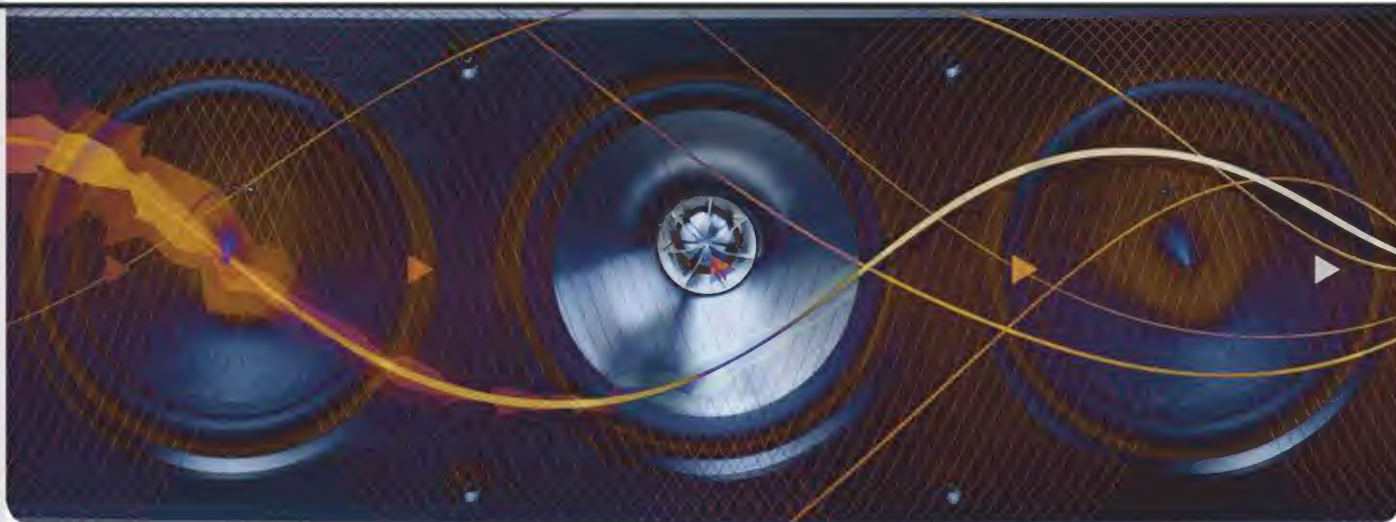


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DIGITAL COPY

Mark Craven discovers that the centre channel speaker is one part of the home cinema experience that can prove tricky to accommodate in the home

I WILL WARN you in advance. My column this month is about centre channel speakers. Not the most enticing opening, I admit, but I'm sure Richard Stevenson or The Beek are writing about something more excitingly controversial elsewhere. Still here? Good. Let's begin.

Anyway, the centre channel, I've come to realise, is the most infuriating element of a home cinema setup. I used to think it was the control nightmare known as HDMI CEC, and before that the fiddly, cluttered bank of speaker terminals on my AV receiver, but now I'm convinced. My centre channel has given me more grief than anything else.

It is, arguably, the most important sonic element of the whole shebang, with the subwoofer coming in a close second. While my left- and right-channel floorstanders are most likely to draw the attention of friends and neighbours, it's the speaker in between them that's key – because I tend to watch movies with dialogue in them. The idea of *The Artist* just doesn't float my boat.

You can get an idea of how vital your centre channel is just by removing it from your speaker setup. Actors open their mouths and say nothing, movies become plotless collages of explosions (well, my sort of movies), overlaid with intermittent bursts of music.

You definitely need a centre speaker. The question is: where the hell do you put it?

The AV dream

In an ideal world it will be behind the display, as it is in a commercial cinema. Yet this is only achievable if you have a projector and an acoustically transparent screen, which I currently do not. So until someone makes an acoustically transparent bigscreen TV, or a centre speaker that can bend light in the style of

the Predator, then those of using flatscreens are already in a bind, having to lose out on a tiny fraction of the cinema experience.

The next options are either to site it below the screen or above it – and, suggests THX and common sense, to then angle it so it points towards the listener. This must explain why **I have seen people with centre speakers sitting on the carpet angled upwards upon a pile of books**. Not an option for me, unfortunately. I have a coffee table in the way and a house-proud wife.

There's a perfect space in my TV stand for a centre channel, but my speaker has a top-mounted tweeter and it just won't fit in. Chop the tweeter off? Again, not really an option.

Where I have my centre channel is just above my screen, perched on a shelf. Performance-wise it's fine, even if it's sitting a couple of inches off the same horizontal plane as the rest of the front soundstage, but it looks dog-ugly. A hulking black box, about 20cm deep, leering over my sexy, ultra-thin flatscreen.

I'm sure there are bigger centre speakers out there doing similar décor-ruining work. If you want the meaty performance that floorstanding speakers provide, there's no other option. Unless, perhaps, you run your AVR in phantom centre mode – that would be controversial...

What I want, of course, is a flatpanel speaker that's tonally matched to the other big-box enclosures in my setup and able to go as loud. But as far as I can gather, such a product doesn't exist. If I'm wrong, please let me know. I'll take one in black, please ■

Have you run into problems with your centre channel speaker? Let us know: email letters@homecinemachoice.com

Mark Craven is presently engaged in a ferocious domestic battle to stop his cat using his centre speaker as a day-bed





FILM FANATIC

Tired of missing out on rare titles and major TV shows, **The Beek** has finally added multi-region Blu-ray playback to his AV setup. He reckons you should do the same

WHEN MY BLU-RAY player developed a terminal fault a few months ago I saw it as the perfect excuse to finally take the plunge and invest in a modified deck. You see, while I've always owned a multi-region DVD player (a necessity thanks to the enormous number of Region 1 discs in my existing collection), until then I'd held off on going down the same route with Blu-ray.

In the early days of the format, being locked in to Region B wasn't much of a problem. The vast majority of Blu-ray releases (mainly Hollywood blockbusters back in those days) were available almost simultaneously in the US and the UK – or if there was a delay it tended to be a month at most.

However, the past few years have seen more and more independent labels springing up on both sides of the Atlantic, and due to licensing restrictions from the catalogue-holders and distributors they are dealing with, more often than not they are required to region-lock their discs. And, with many of those titles unlikely to see a hi-def release in other territories any time soon, **the worldwide Blu-ray market has finally matured to a point where no film fan can afford to be without a multi-region player.**

Hence my change of heart.

Thanks to this addition to my kit rack I've been able to enjoy the delights of some of the best discs currently being put out by independent US labels. And I don't just mean the obvious candidates like the Criterion Collection. There's also the likes of Synapse, which added to my growing HD Hammer collection with its sensational edition of *Twins of Evil*, and Shout! Factory, whose feature-packed Blu-rays of *Halloween 2*, *Halloween III: Season of the Witch* and John Carpenter's satirical sci-fi *They Live* have joined my disc shelf.

But a multi-region Blu-ray player doesn't just allow you to circumnavigate the tricky world of international licensing. It can also help overcome some of the more shortsighted decisions being taken by studios.

Blu-ray no-shows

Towards the end of last year Channel 5 screened the US mini series *Hatfields & McCoy*s. However, as I don't have access to a hi-def version of that channel at home, and knew that Sony Pictures had released it on Blu-ray back in July, I decided not to watch it when it was broadcast. Rather, I would wait for the inevitable UK Blu-ray release.

Then came the news that the UK arm of Sony Pictures would only be releasing the show on DVD. I can only presume it thought there would be no market for an HD release of this Western on our side of the Atlantic. This wouldn't have been quite so troublesome if it wasn't for the fact that the US release was locked to Region A.

This isn't a one-off deal either. Despite the fact that Sony rarely ever implements region-coding on its film releases, it has locked US Blu-ray releases of all four seasons to date of *Breaking Bad*, while only bothering to release them in standard-def in the UK. So, apart from investing in a multi-region Blu-ray player, how exactly does Sony Pictures expect UK fans to get hold of hi-def copies of these acclaimed shows?

I realise that many of you reading this will have already gone down the multi-region route on BD. But for those who haven't, do yourself a favour and add a modified deck to your system ASAP. It's the one component no HD fan should be without ■

What do you think about Blu-ray and DVD region-coding?
Let us know: email letters@homecinemachoice.com

Anton van Beek thinks that the joy of watching *Twins of Evil*'s Madeleine and Mary Collinson cavorting around in HD is the best thing Blu-ray has ever given us



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One-man movie den

HCC reader **Jag Phull** reveals how his cinema 'dog house' was a real passion project



Jag's room took around six months to complete, but looks well worth it!



LAST YEAR WE featured a purpose-built cinema outhouse owned by HCC reader Jag Phull. Since then, we've been back in touch and pumped Jag for more info on how he ended up having a high-end movie den sitting at the bottom of his garden. The answer? A lot of hard graft, a lengthy build process and a few upgrades along the way...

Why did you decide to build your own cinema room?

My brother-in-law once brought a projector over to my place. The image it fired up left my jaw on the floor. I wanted it. I wanted the cinema experience at home.

Over the years, I've developed my passion and at one point converted my main reception

room into a part-lounge/part-theatre.

However, with the pending patter of tiny feet I began having nightmares as to what a toddler could do with their prying fingers to my beloved amp, speakers and retractable screen. It was impossible to child-proof everything.

Whenever I watched a film I was eventually asked to turn the volume down. I simply



Jag's garden before the build started – he decided to take his cinema outside so he could crank up the volume as much as he wanted!



With the foundations finished – at a depth of over two metres – the bricklaying could begin. Areas for both a cinema and storage area were incorporated



Roof on, windows glazed, gutters fitted – it was finally time for our AV-holic to dismiss the builders and get stuck into the room's interior

couldn't enjoy my movies. So, with garden space available a decision was made. I needed a mancave, a retreat, a sanctuary – and, whenever I was in trouble with the missus, a 'dog house'.

That's what I eventually labelled it. It became a pleasure being sent out to my very own dog house. I could crank the volume up as loud as I wanted. It was a no-brainer!

How long did it take you to complete the project?

Building work commenced in August 2009. Builders completed the shell by the end of October 2009. The remaining construction work was completed by myself between October and early February 2010.

Since then I've done further works in the theatre, namely the building of a stage for additional seating, painting the walls a darker lush suede paint and adding velvet panels closer to the screen to reduce reflections. The eventual outcome produced a much better and deeper image. The project is never, however, totally complete as the upgrade bug seems to bite time and time again.

What was the hardest part of the build?

The most difficult point in the build came during the groundworks. It almost felt like it was all over when the building inspector arrived and instructed us to dig deeper – now for the third time! We had initially dug for some one-and-a-half metres. Tons and tons of very hard and dry clay soil had been dug out but we expected to find harder ground. I was advised that if we didn't reach harder ground the project would be brought to a halt. My dream was almost over and I had 2.2m deep trenches in my back garden with piles of mud mounting up in my driveway! Eventually we were given the go-ahead, but the thought that the whole meticulously designed project was about to come to an end left me very stressed and anxious.

Other more difficult parts in the build were generally those many occasions when works requiring at least two people had to be done by me, myself and I. My builder had been contracted to build the general shell and complete the electrics. The room was given a skim, the floor was laid and that was it. The wiring had been prepared in accordance with my design ideas and wires were left capped off for my as-yet-unpurchased wall lights. There were many occasions when I'd have to setup a pile of crates to hold bits in place whilst I joined wood and hung up MDF. Metal clamps were employed in bulk! The most depressing moment came when I entered the room having loosely hung up the underside of a pelmet only for it to have sagged overnight.

Don't get me wrong, I still enjoyed the process – I chose to work on my own. I wasn't willing to share the process with anyone else. The elation I felt as each stage was completed was amazing and I'd do it again tomorrow.

If you did do it again, is there anything that you would do differently?

The one structural change I'd perhaps have made is the addition of a toilet. Either myself or guests often need to make the long march back indoors since the theatre is around 40 metres away from the house. The beauty is that I can pause a film if I need to.

Internally, I have had infinite thoughts on what I could do differently and have already upgraded. Added to the mix now are an ISCO II anamorphic lens, four-metre CinemaScope ratio screen, Sony VPL-HW50ES projector and a Darbee Darblet.

I had an issue with my original three-metre wide, 16:9 screen. Isn't it just innate in our makeup to want to go bigger with everything in life? It just didn't seem big enough to me after a rare visit to my local plex. The four-metre 'Scope screen produces a greater level of 'wow factor' and a more involving cinematic

AUDIO ENSEMBLE

Jag's 7.1-channel array uses kit from Monitor Audio and BK Electronics



The speakers in this dedicated cinema room are run in a traditional 7.1 array with rear surrounds. Jag is using the (now-discontinued) Silver RS range from Monitor Audio (first reviewed in *HCC* back in 2006), with RSFX dipoles built into the wall columns and RSIs on the back wall. All the speakers in the soundstage use the brand's C-CAM drivers and dome tweeters. Monitor Audio did offer a matching subwoofer – the RS W12 – but Jag has opted for BK Electronics' Monolith, which is more affordable and not as stylish, but still impressive. The Silver RS range has now been superseded by the Silver RX lineup (pictured)



The ceiling-mounted projector was once a JVC HD350, but is now a Sony model



Our AV-holic went as far as drawing his own 3D renders during the planning process – but the finished result is actually quite different to this early mock-up



The room incorporates a small accessible loft space, which may come in handy if Jag wants to wire in additional ceiling speakers in the future



The room's original projector screen was a 16:9 ratio, 134in model from Carada – but movies can now be enjoyed in 'Scope ratio at up to four metres



Still a work in progress, but with the screen up and one side of the front speaker housing and stage area complete, it's definitely taking shape



Look – no speakers! The whole front soundstage is cleverly hidden away, as are the surrounds. Only the rear channels are on show at the back of the room

experience without the dreaded black bars. 3D is also so much more immersive with the larger screen.

As for the new projector, having demo'd it against recent JVC and Epson models, I settled with the Sony – it's super-bright and handles with aplomb the huge image it pushes out.

The great thing with the ever evolving technology, of course, is that there are constant advances and improvements in what's out there. Soon 4K will become the norm and I look forward to moving ahead with the times and technology, budget permitting of course!

What's your current favourite Blu-ray?

I make a point of waiting for big movies to release on Blu-ray rather than visit my local

cinema. I've broken the rules just three times in three years to date – more to prevent friends thinking I'm a socially-inept hermit. On at least two of those occasions I wish I'd waited for a Blu-ray release.

There have been a few movies which have reminded me as to what a complete privilege it is to have my own theatre. Most have typically been either action/sci-fi but I've also enjoyed non-action movies like *The Social Network* and the original Swedish *The Girl With The Dragon Tattoo*, both of which were truly stunning on Blu-ray. Action flicks like *Mission Impossible: Ghost Protocol* and less popular movies like *The Sorcerer's Apprentice* also blew myself and my wife away.

How often do you use the room?

Here I'll confess that the answer is 'not often enough'. Probably three or four times a month if I'm lucky. Unfortunately, it's not always easy to make time with a young family to sit and watch a complete movie.

Each occasion is, however, an event and memorable. For me there's nothing more pleasing than taking a big cup of cappuccino and some cake across to the theatre, clicking the macro on the remote and watching the electric curtains open, lights dim and the projector fire up.

Roughly how much did you spend on the project?

The erection of the general build was costly. If I'd had a shell to work from – perhaps an old storage room or garage – I'd have saved lots of money. As it was, I had a very large garden which took ages to mow and a concreted-over patch that had been left bare for years before I'd purchased the property.

Focusing on expenses once the shell was up I'd say the overall cost was less than £8,000. I was able to save a substantial amount of money having carried out the hard graft myself.

I literally searched the world for bargains online. For example, my electric curtain track was shipped to me from China (with illegible instructions). The screen came via the Midlands from the US.

To demonstrate the extent of bargains achieved, the wall lights as seen in the room were purchased at the grand rate of £1 each by selecting suitable items from a discontinued range. Everything within the theatre is operable from the comfort of an armchair, quite literally. Remote controlled main dimmers, which look amazing in a lush chrome finish, were sourced at just over £20!

What do your friends and family think of your AV passion?

Initially, both my parents and wife were very sceptical. They thought I was having an early midlife crisis and investing in a money pit. However, once complete they absolutely loved it. No one had entered the theatre for months whilst I laboured away – I did a huge reveal (in true *DIY SOS* fashion) and the look on their faces was priceless ■

CINEMA ROOM CHECKLIST

SCREEN: Four-metre CinemaScope ratio
PROJECTOR: Sony VPL-VW50ES with ISCO II anamorphic lens

AV RECEIVER: Arcam AVR350

SPEAKERS: Monitor Audio RS range

SUBWOOFER: BK Monolith

REMOTE: Logitech Harmony One

HTPC: Custom-built with Windows 7 Media Centre and 7TB HDD setup

BLU RAY PLAYER: Sony BDP-S370

GAMES CONSOLE: Xbox 360



Before the room's current two-tier, eight-seat system, Jag used a combination of sofas and recliners to provide space for visiting movie fans



This custom-built kit rack not only houses the Arcam AV receiver – there's space for a microwave and a mini fridge as well

BE IN HCC!

EMAIL US: If you want to share your home cinema setup with other readers, email a selection of hi-res pictures (including one of yourself) to letters@homecinemachoice.com with the subject heading 'AV-Holic' – and please include a contact telephone number.



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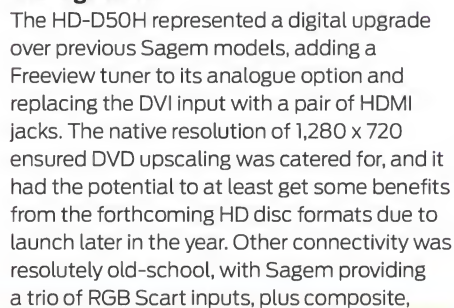
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One of the last DLP screens we reviewed in *HCC* was Sagem's Axiom HD-D50H. A 50in model, it was auditioned by John Archer in our March 2006 issue. Sagem has gone on to be rebranded Sagemcom, focusing its AV efforts in the UK on digital set-top boxes, yet seven years ago its bigscreen TVs were frequently grabbing Best Buy reviews, helped



Also in HCC #126 was a roundup of 50in plasma TVs, with models from Pioneer, Panasonic, Philips, NEC, Fujitsu and LG – four of those brands have since withdrawn from the PDP market



WE TESTED WITH... THE LAST SAMURAI



The Tom Cruise action epic was a regular DVD test platter in early 2006 and became one of the first Blu-ray releases later in that year. Warner Bros also offered it on HD DVD.

FAST-FORWARD

Slim-line screens rule the roost



The demise of DLP TVs has seemingly less to do with the picture quality prowess of rival plasma and LCD models, and more with their domestic desirability. In Europe, more so than in the larger living spaces of the US, space is always at a premium, so 'thinscreen' TVs naturally have more appeal. The Sagem HD-D50H's depth was by no means extravagant, but the chunky base stand gave it a total imprint of close to 40cm – compare that to the likes of LG's new 84LM9600 Ultra HD set (pictured left) and it's easy to see why the writing was on the wall for rear-projection TVs.

The current trend for ultra-thin TVs shows no sign of abating,

although the long-term future of OLED TVs (with their 4mm depth) is by no means assured. Yet with the slender design comes a greatly reduced audio performance compared to TVs from previous eras. While there are models that incorporate speakers in their stands, or forgo catwalk looks in favour of space to house larger drivers, the majority of sets are sonically average at best. Handy, then, that nearly all the large manufacturers also sell soundbar and all-in-one-system solutions...

component and S-video jacks. That's eight video inputs in total.

Audio was delivered by stereo drivers and a subwoofer (size and power not specified) built into the screen's curved, silver base. Given a suitable push of the TV's volume control and the reward was a well-rounded tone, free from treble harshness.

Picture quality was rated highly, with an 'exemplary' black response getting John Archer's blood pumping, in addition to an expressive, vibrant colour palette, absence of dot crawl and artefacting and assured upscaling of low-quality sources. DLP's rainbow effect did rear its ugly head, though, and Sagem's new Crystal Motion processing engine couldn't eliminate occasional motion judder.

In all, our reviewer decided the HD-D50H provided 'a real HD Ready alternative to those who want size without the price.' Yet unfortunately for Sagem and the rest of the rear-pro brigade, this kind of affordable bigscreen just couldn't satisfy our style-conscious desires ■



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PLAYBACK

→ **SOFTWARE HIGHLIGHTS** **THE BOURNE LEGACY** Can the action franchise survive without Matt Damon? **BLADE RUNNER** Ridley Scott's sci-fi slow-burner celebrates its 30th anniversary **ICE AGE 4: CONTINENTAL DRIFT** Cartoon critters take to the high seas in hi-def **ZOMBIE FLESH-EATERS** Restored Italian splatter dazzles on Blu-ray **BRAVE** Pixar raises the benchmark for 3D **AND MUCH MORE!**

Girls, guns and ghouls

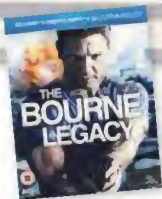
Resident Evil: Retribution in 3D → Sony Pictures → All-region BD

Michelle Rodriguez joins a host of familiar faces dealing out ass-kicking action in the latest *Resident Evil* sequel. Can they inject some new life into the videogame-based franchise? See our 3D Blu-ray review on p98

HCC RATINGS KEY...

Outstanding	★★★★★
Above average	★★★★☆
Acceptable	★★★☆☆
Disappointing	★★☆☆☆
Dire	★☆☆☆☆

Renner finds time to audition for a new *Terminator* flick during ...*Bourne Legacy*



Renner is Bourne to be wild...

With Matt Damon MIA, the hit action-adventure franchise gets itself a new leading man

→ THE BOURNE LEGACY

With the Jason Bourne situation threatening to unearth all manner of dirty secrets about the US military complex, the decision is taken to (literally) kill off another, similar, black ops program. But wouldn't you know it, one of the targets survives, and now the sinister government goons have yet another rogue agent on their hands.

Put like that, *The Bourne Legacy* sounds like a fairly unimaginative re-run of the Matt Damon *Bourne...* movies. But co-writer/director Tony Gilroy (who also co-wrote the previous films) gives the material enough new twists and tweaks to make it a surprisingly fresh and fun experience.

Unlike Jason Bourne, Jeremy Renner's super soldier Aaron Cross positively relishes his genetically-enhanced abilities and the plot hinges on his desire to make them permanent. Meanwhile, as a director, Tony Gilroy demonstrates a deft hand at slowly building tension and mostly resists the temptation to ape the style Paul Greengrass established in ...*Supremacy* and ...*Ultimatum* – at least that's the case until the more action-packed finale, which feels like a lesser copy of what Greengrass accomplished.

And, if the end of the film isn't exactly conclusive, there is at least enough here to suggest that further bigscreen adventures for Aaron Cross could be worth the effort.

Picture: You don't need enhanced abilities to see that Universal has delivered another first rate hi-def AVC 1080p encode with this Blu-ray release of *The*



HCC VERDICT

The Bourne Legacy

→ Universal Pictures

→ All-region BD → £25 Approx

WE SAY: A solid hi-def debut for the pretender to Jason Bourne's action-adventure crown

Movie ★★★★★

Picture ★★★★★

Audio ★★★★★

Extras ★★★★★

Overall ★★★★★

Bourne Legacy. Framed at the original 2.40:1 ratio, the visuals stand up to close scrutiny on a big screen, packing frames with intricate detail and tangible textures, and offering a fine layer of grain that maintains a cinematic aesthetic in the video. Colours are muted at times, with the palette often veering towards steely blues and greens, but the way that the long-shots in Chapter 2 deftly pick out Aaron's red coat against the grey and white mountains show how good the saturation can be when it needs to be.

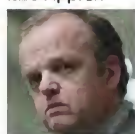
Audio: The Blu-ray picture quality is good, but it's trumped by the disc's audio.

Unusually, there are two English DTS-HD Master Audio options on offer – the original 5.1 mix and a newly created 7.1 track. Both pack some impressive weight in their bass response and make great use of the entire speaker array to craft an immersive soundfield. Admittedly, the use of four discrete surround channels in the 7.1 mix makes rear panning effects a little smoother, but the native 5.1 track is so effective that those with the more traditional setup shouldn't feel as if they're missing out.

Extras: The bulk of the bonus features on Universal's Blu-ray is made up of short production featurettes. These cover a variety of topics, from how the producers approached making a *Bourne...* sequel without Jason Bourne, to location shooting and the filming of the climactic motorbike chase. For more in-depth info about the making of the film, you'll have to give the disc's ensemble crew commentary a spin. Finally there's a trio of deleted scenes, also with an optional commentary.

Berberian Sound Studio

Artificial Eye → Region B BD
£20 Approx

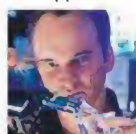


This tense psychological thriller stars Toby Jones as an English sound engineer working on the audio mix for a horror film in '70s Italy. Heavily indebted to the films of Argento, Fulci and their ilk, it's an impressive homage, albeit one that can't quite deliver a suitably grandiose pay-off to its escalating build-up. The BD offers satisfyingly rich and warm AVC 1.85:1 1080p visuals, plus plenty of extras, but (fittingly) the real star is the DTS-HD MA 5.1 soundtrack, with its fetishistic attention to detail and uncanny ability to unsettle in a way the visuals rarely manage.



Tarantino XX

Lionsgate → Region B BD
£75 Approx

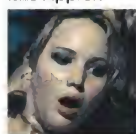


This new boxset collects together eight films that bare Tarantino's DNA – *Reservoir Dogs*, *True Romance*, *Pulp Fiction*, *Jackie Brown*, *Kill Bill: Parts 1 and 2*, *Death Proof* and *Inglorious Basterds*. As these are the same Blu-rays that have been available to buy separately, it might not look like there's anything new for fans. However, the set also contains two new bonus discs. The first hosts an exhaustive 290-minute round-table critical analysis of Tarantino's films, while the second houses a wealth of interviews, a previously unreleased 32-min *Jackie Brown* Q&A and five *Django Unchained* trailers.



House at the End of the Street

Momentum Pictures → Region B BD
£23 Approx



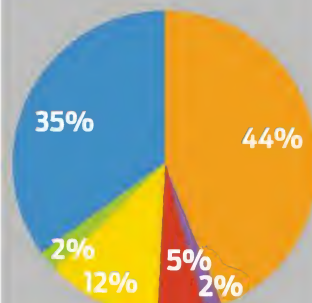
Jennifer Lawrence and Elisabeth Shue add some class to this disappointing flick that aspires to the status of 'A Hitchcockian thriller... geared towards a younger audience' (according to producer Aaron Ryder), but simply comes across as being a completely formulaic, forgettable and surprisingly bland addition to the girl-in-peril sub-genre. On a positive note, the Blu-ray's grainy AVC 2.40:1 1080p encode authentically replicates the film's striking visual style, while the DTS-HD MA 5.1 mix holds some pleasing surprises (particularly during the finale).



WE ASKED...

Which of the following game franchises should be turned into a movie?

■ Halo
 ■ The Legend of Zelda
 ■ God of War
 ■ Half-Life
 ■ Bioshock
 ■ None of them



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Chilly cartoon is lukewarm at best

As the jokes run dry, does cinematic extinction beckon for these prehistoric critters?

→ ICE AGE 4: CONTINENTAL DRIFT 3D

The law of diminishing returns continues to work its magic with this fourth outing in the popular cartoon franchise. This time, when Scrat's lust for acorns inadvertently causes the continental divide (don't ask) Manny, Sid and Diego find themselves stranded on an iceberg and at the mercy of prehistoric pirates as they try to get back home. What follows is a surprisingly mirth-free adventure that is so short on ideas that it's forced to give far too much screen time to a preachy plot involving an annoying bunch of new teenage characters. Yawn.

Picture: This release serves up two hi-def platters, one 2D, the other 3D. The former is every bit as impressive as you'd expect. The AVC 2.40:1 1080p imagery is ridiculously crisp and sharp, (just look at all of that fur!) and richly saturated colours.

Many of the same comments can also be applied to the second Blu-ray's MVC 2.40:1 1080p stereoscopic encode. However, the 3D itself isn't always so impressive. The high-speed onscreen action often leads to some unsightly shimmering and ghosting effects around objects. Additionally, the complexity of the character designs (particularly Manny and the other mammoths, whose tusks move through various planes of depth) leads to confusing depth cues when the action gets too frantic, which proves quite unpleasant to experience.

Audio: There's a lot to like about *Ice Age 4*'s DTS-HD MA 5.1 soundtrack – particularly the thrilling bass that kicks into life during sequences such as Chapter 5's earthquake. The sound of the cracking ice in that



sequence also highlights the impressive precision and clarity of the track.

However, there's no getting away from the fact that the sound design is lacking when it comes to rear activity. There are certainly plenty of surround effects in the mix, but they feel somewhat constrained and aren't given rein to cut loose in the way that the very best animation soundtracks frequently do. We expect more bombast from a film like this.

Extras: The 3D platter is devoid of extras beyond promo clips for a trio of Fox's other family-friendly stereoscopic Blu-ray releases. Over on the 2D platter you'll find a *Party with a Pirate!* viewing mode, a ... *Story So Far* video, two pre-viz deleted scenes, seven featurettes, a sing-along song, three music videos, two trailers and *The Scratist* spoof trailer. Curiously, although the 2D Blu-ray will play back in Regions A, B and C, the 3D platter is locked to Region B.



HCC VERDICT

Ice Age 4: Continental Drift 3D
→ 20th Century Fox → Region B/
All-region BD/R2 DVD → £28 Approx
WE SAY: This lacklustre nautical sequel hits Blu-ray with 3D visuals that could leave you feeling sea-sick

Movie ★★☆☆☆

Picture ★★★★★

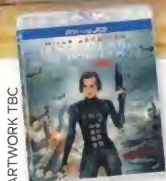
Audio ★★★★★

Extras ★★☆☆☆

Overall ★★☆☆☆



It's days like this that made Alice wish she'd joined her mother's flower arranging business



ARTWORK TBC

Game over for action-horror?

Zombies? Monsters? Ludicrous action? Skin-tight costumes? It must be Milla time again!



→ RESIDENT EVIL: RETRIBUTION

Only Paul W.S. Anderson could ever dream of giving us a car chase through the streets of Moscow that features zombies on motorbikes toting machine guns. But that's just one of the many brilliantly daft action treats he has in store in this fifth outing for the popular videogame spin-off.

Picking up exactly where his last instalment left off, *Resident Evil: Retribution* finds the nefarious Umbrella Corporation continuing to cause Alice (Milla Jovovich) no end of grief. Quickly captured by her mortal enemy, the rest of the film follows her and a bunch of would-be rescuers as they try to escape from Umbrella's undersea base.

And that's pretty much it – there's arguably even less 'story' here than in any of the previous *Resident Evil* outings. Instead of a true narrative structure, there's a series of 'levels' and 'boss fights' for the protagonists to battle through. And, instead

of what movie fans might recognise as a plot, you get one long chase. The entire movie seems designed to get Alice and her friends in place for the next sequel.

Now, if this is all starting to sound a little harsh, don't worry. Whatever Anderson may lack as a storyteller, he's comfortable behind the camera orchestrating action – and this latest film is pretty much wall-to-wall fighting, shooting and blowing things up. So even if it's not the best in the series, it's still a whole lot of fun.

Picture: There are few filmmakers who have embraced 3D technology quite as enthusiastically or successfully as Paul W.S. Anderson. Through *Resident Evil: Afterlife*, *The Three Musketeers* and now *Resident Evil: Retribution*, he's demonstrated a natural affinity with the stereoscopic format that brings out the very best in both the tech itself and his abilities as a director.

His latest 3D adventure dazzles from the off with its extended slow-motion, reverse-action title sequence. It's the sort of scene that would serve as the high point of any other title, but as flashy as it is, it's pretty much just par for the course when it comes to *...Retribution's* MVC 2.40:1 1080p encode.

The depth inherent in the 3D locations is frequently mindblowing – Anderson has taken care to setup his sets and shots. Every character present within them has a tangible volume, too, meaning they feel like solid three-dimensional objects in their own right rather than a series of flat objects operating on a series of different planes.



Michelle Rodriguez returns – but which side is she on and how is she back after her character died in the first film?



DEMO SCREEN...

Resident Evil: Retribution in 3D

Time code: 021.38 – 024.24



Battle royale: In this stereoscopic showcase, Milla Jovovich's Alice takes on a horde of ghouls in a stark white corridor, allowing director Paul W.S. Anderson to deliver some stunning 3D action.



There will be blood: Anderson knows how to make the most of pop-out 3D effects, at one point following a bullet through the air before it hits a zombie's head and splatters the camera with viscera.



The gore gore girls: The depth of the location draws viewers into the chaos and provides the perfect volumetric frame as Alice takes out the undead with a swinging chain and her gravity-defying kung-fu.



Run for the hills: As Alice finally finds herself outnumbered, Anderson uses the depth of the corridor to emphasize how far she has to run for safety and the closeness of her zombie foes.

Given all of the above, it's hardly surprising that the optional 2D AVC presentation derived from the MVC encode is just as awe-inspiring. The brilliance of the colour saturation, astonishing sharpness, intricate detailing and inky blacks mark this out as a reference quality presentation – but if you have a 3D cinema setup, you've got to stick with the stereoscopic iteration, as it's clearly the way this movie was made to be seen.

Audio: Before the movie itself even gets going properly, the onscreen company logos are accompanied by the sound of distant gunfire and explosions, as well as helicopters flying through the soundfield. This provides a good clue as to the nature of *Resident Evil: Retribution's* lossless DTS-HD Master Audio 5.1 mix: full-on and frantic.

Given the scope of the film's material, the mix has very few reasons to pull punches. Anderson's sound editors simply set out to overpower the audience with a thunderous LFE channel and ridiculously aggressive surround effects. Bullets zip past your ears, zombies run toward the screen screaming,



explosions reverberate around you. It's almost everything you could ask for, although a movie this mental deserves a 7.1 track.

Extras: Alongside the feature film, Disc One includes a chummy commentary by Anderson, Jovovich and actor Boris Kodjoe. There's also a second, more technical, commentary by Anderson and producer Jeremy Bolt, five 3D deleted/extended scenes and a 3D outtake reel.

Disc Two kicks off with *Project Alice*, an interactive database of characters and creatures from the five films, including text biogs and video clips for each.

Following this is a collection of six behind-the-scenes vignettes (*Maestro of Evil: Directing Resident Evil: Retribution*, *Evolving Alice*, *Resident Evil: Reunion*, *Design & Build: The World of Resident Evil: Retribution*, *Drop (Un) Dead: The Creatures of Resident Evil: Retribution*, *Resident Stuntman* and *Code: Mika*). None are particularly lengthy (the combined running time of the six is just 49 minutes), but they still provide a semi detailed look at various aspects of the production. Disappointingly, the film's rather nifty trailer is nowhere to be found on either disc.



The menu on the first disc (top) defaults to 3D if played on a compatible setup



Even more impractically clothed ladies have joined the series...

HCC VERDICT

Resident Evil: Retribution in 3D

→ Sony Pictures

→ All-region BD → £28 Approx

WE SAY: Top-notch 3D effects and awe-inspiring lossless audio make this sequel a must-see on BD

Movie ★★★★★

Picture ★★★★★

Audio ★★★★★

Extras ★★★★★

Overall ★★★★★

Animators used 1,500 hand-placed, sculpted curls to create Merida's hair



Pixar princess hits the bullseye



The CG animation powerhouse tackles traditional Disney fare with its latest 3D blockbuster



→ BRAVE

To say that Pixar's latest film *Brave* doesn't quite reach the same heights as the studio's best films is to do it a disservice. Pixar has set the bar so high with some of its earlier animations that very few films will ever measure up. So, while *Brave* might not be as good as, say, *Toy Story* or *Ratatouille*, it's a smart, witty and exciting tale that is streets ahead of pretty much anything that the animation house's rivals have ever cooked up.

Set in a mythic version of Scotland, the story focuses on Merida, the feisty daughter of a Highland king, who is mortified when she learns that her parents plan to marry her off to cement peace with the neighbouring clans. Refusing to do as she is asked, Merida sets out on a course of action that could ultimately rip her family apart.

Perhaps the most surprising thing about *Brave* is that it sees Pixar moving into more traditional 'Disney Princess' territory. Of course, this being a Pixar film, the 'traditional' aspects only go so far, and the studio brings the material bang up to date, giving viewers a – sadly all-too rare – animated heroine who doesn't need the love of a good man to provide a happy ending to her story.

Picture: Stunning is the only word we can think of to sum up *Brave* in both its 2D and 3D guises on Blu-ray.

While director Mark Andrews may have shied away from stating which version was the preferred presentation of the film when we spoke to him (see HCC 214), there's no denying that the MVC 2.40:1

1080p stereoscopic version is a work of art. Nearly every shot makes great use of depth, with sequences such as Merida's arrow-firing antics in Chapter 2 playing much better in 3D than they do when seen 'flat'. Volumetric concerns, such as the roundness of faces, the textures of the rough-hewn clothing and – most impressive of all – Merida's untamed hair, aren't a problem either. This is one 3D presentation that doesn't put a foot wrong on Blu-ray.

Elsewhere the 2D AVC 2.40:1 1080p encode proves as enjoyable as you'd expect from the company that previously gave us the sensational Blu-ray imagery of *Wall-E* and *Cars*. Colours are rich and warm, blacks are rock solid, detailing is immaculate and there's not a trace of any technical issues. Fantastic.

Audio: From the opening room-rattling roar that accompanies the pre-title bear attack, to the gentle whispers of a will-o'-the-wisp, *Brave*'s Dolby TrueHD 7.1 mix is a track of rare beauty. Frequently ferocious in its dynamic range, but brilliantly precise in its panning and placement, it'll remind you why you became a surround sound fan in the first place.

Extras: Disney's three-disc set is crammed with bonus features. The making of the movie is covered by an enjoyable filmmakers' commentary and eight behind-the-scenes featurettes. Beyond that there's a plethora of deleted and alternate footage, a quartet of short animated vignettes, three trailers, five art galleries and a pair of new Pixar shorts – *La Luna* (also in 3D on the relevant platter) and *The Legend of Mor'du*.

HCC VERDICT

Brave 3D

→ Walt Disney Home Entertainment
→ All-region BD → £28 Approx

WE SAY: This feisty Celtic folk tale finds Pixar raising the bar for home cinema AV performance yet again

Movie ★★★★★

Picture ★★★★★

Audio ★★★★★

Extras ★★★★★

Overall ★★★★★

Doctor Who: The Reign of Terror

BBC Worldwide → R2 DVD
£20 Approx



Gallows humour abounds in this six-part 1964 serial set during the French Revolution that marked the end of the show's first series. Sadly, only four of the episodes still exist, but for this DVD release, the two missing episodes have been recreated using the surviving soundtracks and some stylish animation. Unsurprisingly, the archival 1.33:1 video looks pretty rough, but the audio for all six episodes is excellently rendered. The usual plethora of extras is supplemented by a gallery of animation character models and a closer look at the animated sets.



Little Shop of Horrors

Warner Home Video → All-region BD
(US Import) → £22 Approx



Fans of Frank Oz's blackly comic musical about a man-eating plant are well-served by this recent region-free US Blu-ray release. Not only do the (authentically grainy) AVC 1.78:1 1080p encode and remixed DTS-HD MA 5.1 audio make it look and sound better than ever, but the disc also includes the option to watch the 'Director's Cut' of the film which features the original, more downbeat finale. Also included on the disc are a director's commentary (plus a separate chat-track for the alternate ending), two retrospective featurettes, outtakes and deleted scenes and two trailers.



Groundhog Day

Sony Pictures → All-region BD
£16 Approx



The hit 1993 Bill Murray comedy gets its chance to shine in the hi-def spotlight with this new 'Special Edition' Blu-ray release. The film certainly looks like a product of its time, with the AVC 1.85:1 1080p encode exhibiting plenty of heavy grain – although Sony's restoration team ensure that this doesn't detract from the clarity of the image or accuracy of colour rendering. The Dolby TrueHD 5.1 mix is mainly focused on the front of the soundstage. Extras from earlier DVDs are joined on this Blu-ray by a new pop-up video trivia track hosted by Punxsutawney's own 'Needle Nose Ned'.



The Last of the Mohicans

Warner Home Video → All-region BD
£16 Approx



Michael Mann's lavish screen adaptation of James Fenimore Cooper's novel makes a belated bow on UK Blu-ray. The AVC 2.40:1 1080p visuals are extremely dark and grainy, which often robs the picture of detail and gives it a softer appearance, but this appears to be true to the source material. The visuals are backed-up by a powerful (if front-heavy) DTS-HD MA 5.1 track that comes alive during battle scenes. In addition to the so-called 'Definitive Cut' of the film, the BD also includes a chat-track and a three-part *Making of...* documentary.



Great Scott! Blade Runner's back

Sci-fi masterpiece celebrates its 30th birthday – but is it worth buying again on Blu?

→ BLADE RUNNER

Whether you prefer 2007's *...Final Cut*, 1992's *Director's Cut*, the 1982 *US Theatrical Cut*, the 1982 *International Cut* or the original *Workprint*, Ridley Scott's blend of sci-fi and film noir remains as philosophical, enigmatic and absorbing as ever. An unmissable movie.

Picture: The first two discs in this set are identical to the first and third from the 2007 five-disc US release. As such, the VC-1 2.40:1 1080p encode of *...The Final Cut* is also the same as that used for the previous UK Blu-ray and boasts the same strengths (colour saturation, black levels, shadow detail) and nagging issues (some obvious grain reduction).

The second disc sees the UK hi-def debut of three further edits of the film, using a branching VC-1 2.40:1 1080p encode. Wear becomes much more of an issue here, as its clear that they haven't benefitted from the same level of restoration as *...The Final Cut*.

The final disc is new to this set. Although all of the elements were included in the old US disc, the supplements all appeared on separate DVDs. Here, though, everything has been put on a single Blu-ray platter and the *Workprint* version of the film has now been encoded in AVC rather than VC-1. Yet it still looks much the same as it always did – pretty rough and ready, in other words.

Audio: As with the picture, the quality of the audio is generally impressive, but not without some issues. *...The Final Cut*'s Dolby TrueHD 5.1 soundtrack is still as remarkable as ever, while the *Workprint* has been given an effective upgrade from Dolby Digital 2.0 stereo to DTS-HD MA 5.1 for this release. Sadly, the



HCC VERDICT

Blade Runner: 30th Anniversary Ultimate Collector's Edition

→ Warner Home Video
→ All-region BD → £35 Approx
WE SAY: A fitting Blu-ray celebration of Ridley Scott's iconic sci-fi milestone

Movie ★★★★★

Picture ★★★★★

Audio ★★★★★

Extras ★★★★★

Overall ★★★★★

three other branching versions of the film are still saddled with lossy Dolby Digital 5.1 presentation.

Extras: There's not much in the way of new extras here, but the important thing is that everything from the old five-disc US release is present. This includes intros to all five versions of the film by Ridley Scott, three commentaries for *...The Final Cut*, a commentary for the *Workprint*, the sensational 214-minute *Dangerous Days* documentary, a 30-minute look at the different versions of the film and the creation of *...The Final Cut*, plus a plethora of archival interviews, trailers, featurettes, screen tests and deleted scenes.

The only new disc-based material is a collection of eight HD art galleries. However, this deluxe boxset also comes with a model replica of a Spinner car, a concept art card, a lenticular film still postcard, a double-sided 72-page hardback book packed with photos and art, plus a UV Digital Copy of the film.



Italian splatter that really matters

Arrow's new restoration of Fulci's controversial horror is a sight for sore eyes

→ ZOMBIE FLESH-EATERS

A poster boy for the video nasties furore in the UK, Lucio Fulci's 1979 zombie film may be available uncut on these shores these days, but that doesn't mean that it no longer packs a punch. Whether it's the memorable sight of a zombie wrestling a shark or the unforgettable close-up of an eyeball being speared by a wooden splinter, *...Flesh-Eaters* is a horror triumph that always delivers the goods.

Picture: Arrow's track record with Italian horror films of this vintage has been a little patchy in the past. But *Zombie Flesh-Eaters* shows what the company can deliver when it's allowed to oversee its own restoration rather than being given a pre-existing hi-def master by an Italian distributor. The new AVC 2.40:1 1080p is remarkable, with pin-sharp details and solid colours finally allowing fans to savour the gorgeous widescreen photography.

Audio: *Zombie Flesh-Eaters* shuffles onto Blu-ray with LPCM 2.0 versions of the film's English and Italian dubs (both with their own slightly different subtitle tracks). Frequency range is pretty good in both mixes, although things can get a little pitchy in the high-end of the film's score. This is endemic of the original recording rather than any kind of technical inadequacy of this release.

Extras: As well as its impressive AV quality, this double-disc Blu-ray set boasts a comprehensive collection of bonus goodies (there's even the option to watch with a choice of three title cards – *Zombie*

Flesh Eaters, *Zombi 2* or *Zombie* – depending on your preference). Present on the first disc are a video intro by actor Ian McCulloch, two audio commentaries (the first pairing frequent contributor Calum Waddell and screenwriter Elisa Briganti, the other by genre experts Stephen Thrower and Alan Jones), an hour-long documentary about Italian zombie films, plus trailers and radio spots.

Meanwhile, over on the second disc there's a 46-minute chat with McCulloch about the three Italian horror films he made, a quick look at the film's script (mainly the notorious, censor-baiting eyeball scene), a 29-minute Q&A with composer Fabio Frizzi and a 27-minute natter with special effects supremo Gino De Rossi.



HCC VERDICT

Zombie Flesh-Eaters

→ Arrow Video

→ Region B BD → £22 Approx

WE SAY: Arrow's spectacular double-disc Blu-ray release is a must-own for all splatter fans

Movie ★★★★★

Picture ★★★★★

Audio ★★★★★

Extras ★★★★★

Overall ★★★★★

Alfred Hitchcock Collection

Warner Home Video → All-region BD
£40 Approx



This new triple-pack brings together two previously released Hitchcock Blu-rays – *North by Northwest* (released back in 2009) and *Dial M for Murder* (reviewed last issue)

– with a newcomer in the form of *Strangers on a Train*. The AVC 1.33:1 1080p black-and-white encode of the latter impresses from the start with its combination of sharpness, clarity and excellent contrast, and is ably supported by an equally well restored DTS-HD MA mono mix. Extras take the form of a commentary, five featurettes, the theatrical trailer and a standard-def version of the Preview Version of the film.



The Passion of Joan of Arc

Eureka: The Masters of Cinema Series
→ Region B BD → £23 Approx



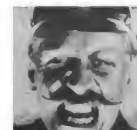
Eureka has added a new crown jewel to its acclaimed Masters of Cinema range with this superb Blu-ray debut for

Carl Theodore Dreyer's silent masterpiece. Arriving in a deluxe slipcase, accompanied by a mammoth 100-page collection of essays, the disc features a choice of stunning 20fps and 24fps presentations of a new 2K restoration of the original 1928 version of the film (with optional, alternate music scores). Also on offer are a restoration comparison and the re-edited Lo Duca version created in the 1950s (also in 1080p).



Battleship Potemkin & Drifters

BFI → Region B BD/R2 DVD
£23 Approx

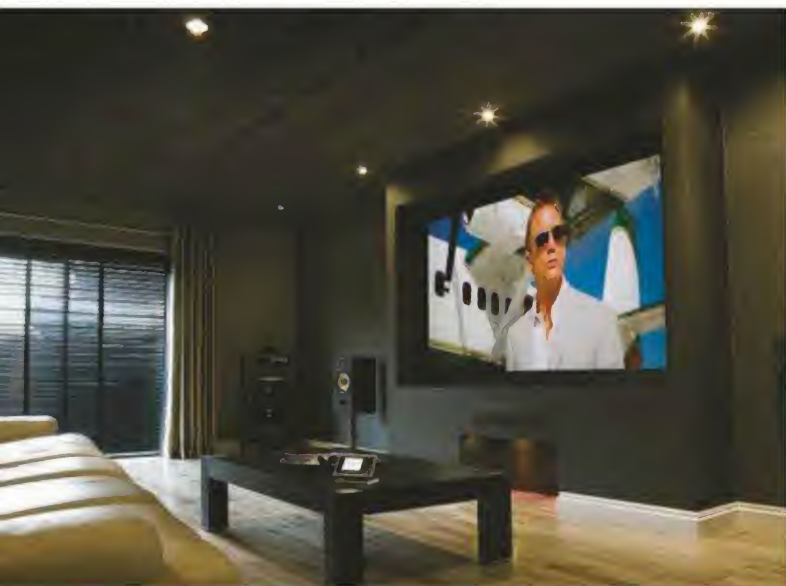


The second of the BFI's 'The Soviet Influence' releases is notable for marking the UK HD debut of that

best-known of all Soviet films – Sergei Eisenstein's *Battleship Potemkin*. While still riddled with damage, the stability and clarity of the 1.33:1 image (encoded at the authentic 18fps) is pretty special. Joining ... it is *Drifters*, a UK film about a fishing fleet that draws visual inspiration from Eisenstein's classic, plus three extra short films (all also restored in 1080p). A booklet of essays is also included that helps put the films in context.



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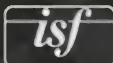
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Alliance
Certified



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Foundation
Trained



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Team HCC checks out the new gaming blockbusters vying for your cash...



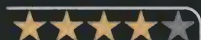
Call of Duty: Black Ops II

Activision → Xbox 360/PS3/Wii U/PC → £50 Approx

As much as we've enjoyed the *Call of Duty: Modern Warfare* games, the first *...Black Ops* left us pretty cold. Thankfully, those responsible have clearly learnt from their mistakes last time around and have won us over with this sensational sequel.

Set in the near future, this first-person shooter wastes no opportunity to kit players out with all manner of cool military hardware and provide plenty of targets to use it on.

The dev team has also cut loose with the action set-pieces, throwing you into events that look and sound like they've been ripped straight from a Summer blockbuster. Couple that with superior multiplayer modes and *...Black Ops II* is clearly tailor-made for your big screen.



Far Cry 3

Ubisoft → Xbox 360/PS3/PC → £50 Approx

Sun, sea and shooting are the order of the day in this superb first-person action game. Eschewing the genre's usual fondness for funnelling players down carefully-disguised corridors, *Far Cry 3* gives you an open-world tropical island to explore as you try to rescue your chums from vicious pirates.

The gameplay itself is just as open as the setting. Sure, you can always opt for the traditional run 'n' gun approach. But why not practice your finely-honed stealth skills? Or take a break from it all and hunt the local wildlife instead?

Make no mistake about it: with its cutting-edge graphics, sensational sonics and superb gameplay mechanics, *Far Cry 3* is easily the best shooter of the past year by some margin.



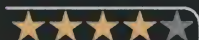
Halo 4

Microsoft Studios → Xbox 360 → £50 Approx

It's been five years since *Halo 3* left Master Chief drifting through space with the war against the Covenant finally finished. Although franchise creators Bungie are no longer involved, under the reins of 343 Industries this new *Halo* sequel feels like a seamless transition.

Indeed, our biggest complaint about *Halo 4* is that in many ways it's just business as usual (right down to tussles with rogue Covenant forces). But it always maintains the franchise's biggest strength – the solidity of the gun-play and balance of the weaponry is as good as ever.

And despite a bit of minor clipping in some locations, *Halo 4* also looks and sounds suitably epic, throwing out plenty of memorable sci-fi settings for you to blast your way through.



Hitman: Absolution

Square Enix → Xbox 360/PS3/PC → £45 Approx

The *Hitman* franchise is a curious thing. Strip away the glossy hi-def graphics and dollops of ultra-violence and you're left with a glorified puzzle game. And this fifth addition to the series is no different.

Indeed, *Hitman: Absolution's* biggest problems come when it strays from the franchise's roots. These more action-packed missions strip away the freedom and decision-making that makes the traditional trial-and-error approach to the series so rewarding, replacing it with more cinematic material that lacks the fluidity of the rest of the game.

But even if *...Absolution* loses focus at times, it's still good fun. And it also implements some surprisingly smart competitive online features that extend its life-span beyond the storyline.





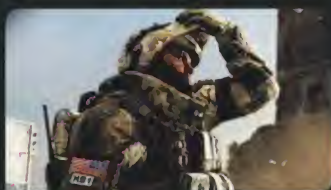
Lego: The Lord of the Rings

Warner Bros. Interactive → Xbox 360/PS3/Wii/PC → £45 Approx

2012's previous Lego game *DC Super Heroes* (reviewed in HCC 211) left us feeling quite positive but hoping for 'something a little more innovative next time'.

But, although Traveller's Tales has added some new wrinkles to the gameplay this time out—such as item crafting—, at the end of the day it's just more of the same, now wrapped up in cute Lego versions of characters from *The Lord of the Rings*.

Some of the gameplay tweaks have caused their own problems, particularly with the clumsy mapping of the inventory onto the control pad. And while the lifting of dialogue from the films adds to the characterisation, it doesn't always feel balanced with the rest of the game's audio mix. One for die-hard fans only.



Medal of Honor: Warfighter

Electronic Arts → Xbox 360/PS3/PC → £50 Approx

It's been a couple of years since the last *Medal of Honor* title hit the shelves. You might think this would have given the development team ample time to create a new game that could challenge *Call of Duty* for the first-person shooter crown.

Sadly, they haven't. While ... *Warfighter* serves up no shortage of bombastic set-pieces and makes a valiant attempt to tell a more personal story, it struggles where it matters most—gameplay. Controls are sticky, the frame rate wobbles up and down, and the less said about the game's dire driving sequence the better.

Even the multiplayer mode, usually the saving grace in games like this, feels similarly incomplete and undernourished.



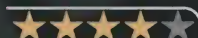
Need for Speed: Most Wanted

Electronic Arts → Xbox 360/PS3/PC → £45 Approx

The *Burnout* franchise might have been left cooling its tyres since 2008, but developer Criterion Games still has what it takes to nab pole position, if its take on the perennial *Need for Speed* series is anything to go by.

Like it's 2008 hit *Burnout Paradise*, ... *Most Wanted* takes place in an open-world city where you can drive around the streets, finding various races and challenges to undertake and building up an epic collection of vehicles to drive. The difference here is that you often end up having to avoid the law as well as other racers.

Chuck in the game's photo-realistic graphics and heart-stopping soundtrack and it's like taking part in your own Hollywood car chase.



BOARD GAMES...



Star Trek Catan (Esdevium Games):

We'll confess: we'd never heard of the cult board game *Settlers of Catan*, but once we'd got the hang of this *Civilisation*-style strategy game (here modded to a *Star Trek* theme) we found it hard to stop. A lavish set, too.



The Walking Dead (Esdevium games):

Quicker to play and less in-depth than *Star Trek*..., this TV-show tie-in features both multiplayer and single-player(!) options. The latter works well, but the former is more fun. Will you team up or seek survival on your own?



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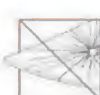
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→ **GEAR GUIDE** **TELEVISIONS** From entry-level 40in LEDs to flagship monster plasmas
BLU-RAY PLAYERS Which deck rules the roost? **PROJECTORS** It's time to blow up your video!
AV RECEIVERS 5.1, 7.1, 9.2 – we've got all the options covered **SPEAKERS** Killer surround sound setups
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HCC RATINGS KEY...

Outstanding	★★★★★
Above average	★★★★☆
Acceptable	★★★☆☆
Disappointing	★★☆☆☆
Dire	★☆☆☆☆

TOP 10 TELEVISIONS

All prices are approx and may have changed

**Panasonic TX-P55VT50** → £3,000

★★★★★

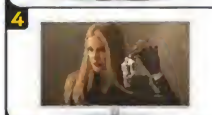
Panasonic's plasma TVs continue to impress, and this 55in VT50 model represents the best of its 2012 range – picture strengths include typically cinematic images with exquisite black levels, and the design is simply gorgeous

**Sony KDL-55HX853** → £1,800 ★★★★★

Sony has returned to form with this 55in LED 3DTV that majors on detail and motion handling, and sports a price that undercuts similar-sized rivals. Buy with confidence

**Samsung UE55ES8000** → £2,500 ★★★★★

While its Smart features certainly catch the eye – particularly voice and gesture control – this super-slim LED set delivers where it counts, with vibrant HD images that frequently dazzle

**Panasonic TX-L47DT50** → £2,000 ★★★★★

We love the luxurious design from Panasonic for this high-spec 47in LED set, and its vibrant images rival the competition. The asking price is a bit steep, though

**Philips 46PFL9707** → £2,300 ★★★★★

Philips' second iteration of its Moth Eye screen technology continues to offer astonishing contrast. This set is at its best with 2D HD material, though: crosstalk with 3D is apparent

**Toshiba 40RL858** → £500 ★★★★★

An ideal set for a budget setup – there's no 3D on offer here, or Toshiba's CEVO processing, but the £500 ticket gets you a smart brushed aluminium trim and sharp HD images

**Samsung UE32EH5000** → £400 ★★★★★

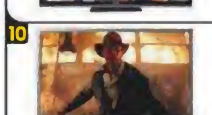
If you need a 32in TV, this is the model to get – what it lacks in Smart skills it makes for in the AV department. Both HD and SD material impresses and the price ain't bad either

**LG 47LM670** → £1,500 ★★★★★

A mid-range screen that offers real value for money. Design-wise, it's an absolute triumph, and the Passive 3D is great for social occasions. Shadow detailing could be better, though

**Sharp LC-70LE741E** → £2,500 ★★★★★

Another monster screen from Sharp with an eye-catching price tag, this 70incher offers pleasing 2D visuals and a smattering of Smart features. 3D performance is marred by crosstalk, though

**Samsung PS60E6500** → £1,600 ★★★★★

This middle-of-the-road 60incher shows there's more than one brand with plasma on its mind. The price is great and the HD and 3D performance enjoyable. Worth an audition

TECH INFO: TELEVISIONS



Plasma or LCD?: The TV market is becoming increasingly dominated by LED-lit LCD screens that are much, much thinner than traditional cold cathode fluorescent lamp (CCFL) screens. For 42in and above, plasma display panels (PDPs) come into play, although LED screens up to 70ins are also hitting the high street – and 84in 4K panels are also on the way. Plasma screens generally offer superior black levels, better viewing angles and less 3D crosstalk, but less brightness and a higher energy consumption. There's also a more limited choice – with just Samsung, LG and Panasonic selling plasma TVs in the UK.



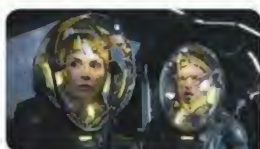
Active or Passive: At the beginning of the 3D revolution, most TVs featured the Active system that uses relatively expensive, powered 3D specs to deliver Full HD images to each eye. Passive 3D TVs, which are increasingly common and now sold by LG, Philips, Toshiba and Panasonic, have a filter over the screen and use non-powered specs with polarising filters. The glasses are cheap as chips, but the resolution of Full HD 3D is halved to 540 lines horizontally (but remains at 1,920 vertically). Glasses-free 3D is in its infancy, with just Toshiba's ZL2 set on sale at present.

TOP 5 BLU-RAY MOVIES

**The Expendables 2**

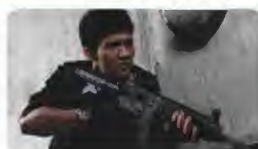
With its 7.1 DTS-HD Master Audio mix 'optimised' for 11-channel Neo:X and its macho cast list (including Chuck Norris and Jean Claude Van Damme), this is a treat for those who like their movies loud and ludicrous.

★★★★★

**Prometheus**

Ridley Scott returns to his *Alien* universe for another slice of gory, intense sci-fi horror. While it doesn't quite live up to the standards he set in 1979, this is still superior filmmaking – and the BD is a cracker.

★★★★★

**The Raid**

An Indonesian actioner written and directed by a Welshman, *The Raid* isn't your typical Hollywood fare – even so, this martial arts-strewn crime caper is a cult classic in the making. An indispensable purchase.

★★★★★

**The Cabin in the Woods**

Written by *Avengers Assemble* director Joss Whedon, this innovative, original horror flick serves up a perfect mix of mystery and mayhem – and will have you reconsidering the whole genre...

★★★★★

**Lawrence of Arabia**

With its 1080p visuals taken from a brand-new 8K restoration, this recent BD release is proof that revisiting classic flicks is well worth the effort. Astonishing work by the team at Sony Pictures.

★★★★★

TOP 10 BLU-RAY PLAYERS

All prices are approx and may have changed

- 1**  **Oppo BDP-103EU → £500 ★★★★★**
 Oppo's first deck for two years has been worth waiting for. The universal BDP-103EU features a class-leading build and all manner of bonus goodies, including twin HDMI inputs should you want to lavish some of its processing power on lesser components. AV performance is faultless, and the onscreen menus are superb. All hail the the new king of Blu!
- 2**  **Sony BDP-S790 → £240 ★★★★★**
 This range-topping deck represents a bargain AV purchase. As well as its 4K upscaling talents, the Sony delivers BDs and DVDs with aplomb, spins SACDs and offers twin HDMI outputs. Classy
- 3**  **Primare BD32 → £3,200 ★★★★★**
 At over £3,000 the Primare is hardly an impulse purchase, but you might not care. The build is luxurious and the audiophile tweaks make it an accomplished player with music and movies
- 4**  **Cambridge Audio Azur 751BD → £800 ★★★★★**
 If we were designing a BD deck from scratch it would look a lot like this – built like a battleship and taking whatever disc format you throw at it in its stride. Blessed with sonic finesse
- 5**  **Pioneer BDP-LX55 → £350 ★★★★★**
 An impressively-styled and well-built universal player with a BD performance that's hard to fault and a clean way with CDs. The Smart cupboard is a little bare, though
- 6**  **Denon DBT-3313UD → £900 ★★★★★**
 As a 'transport' rather than a player, this universal Denon lacks built-in decoders and analogue outputs, but partner it with one of the brand's AVRs via Denon Link HD and you'll be rewarded
- 7**  **Panasonic DMP-BDT500 → £300 ★★★★★**
 Panasonic's range-topper loves your Blu-ray collection. HD images are sharp and fluid and it doubles as a great Smart hub. The touchpad remote is a bit tricky, though
- 8**  **Sony BDP-S185 → £90 ★★★★★**
 A fantastically priced player that mixes a decent AV performance with Sony's content-rich VOD service. Ideal for a budget system or bedroom addition
- 9**  **Samsung BD-E8500 → £400 ★★★★★**
 By combining a 3D Blu-ray player with a twin-tuner 500GB PVR and Smart portal, Samsung's somewhat chunky deck is the king of convergence. A ITB version is also available
- 10**  **Dune Smart BI → £240 ★★★★★**
 Looking more like an external PC drive than a typical BD player, Dune's device is packed with techie features (eSATA port, Samba/SMB support) that make up for the lack of 3D

TECH INFO: BLU-RAY PLAYERS

Matching your deck to your AV receiver: Blu-ray decks are designed to deliver top-notch images (some do it much better than others, of course) but Blu-ray is also about enjoying superior quality sound. When choosing a player, bear in mind the connectivity and decoding features of your AV receiver. If you're still using an older model that doesn't offer HDMI inputs, then you'll need a Blu-ray player with multichannel analogue audio outputs to enjoy decoded hi-res surround sound formats. Similarly, older but still HDMI-equipped receivers may not be able to cope with 3D video signals, in which case you'll need a deck with dual HDMI outputs – one channeling audio to your receiver amp, the other piping video direct to your TV.

What about the PlayStation 3?: Sony's console ushered in the era of Blu-ray playback in 2006 and still represents an easy path to hi-def heaven. For a low-budget home cinema system, the £200 PS3 Slim (160GB) makes a decent choice – especially if you like playing games (in 3D, if you fancy it). Control via a joypad is a pain, though, and the console runs more noisily than most traditional BD spinners.



DEMO DELIGHT

Prometheus: Ridley Scott's return to the sci-fi genre is a treat for your senses, with a crystal-clear HD image and spine-tingling sonics. The 3D presentation of this outer-space horror is impressive too – it oozes depth and proves utterly immersive

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TOP 10 PROJECTORS

All prices are approx
and may have changed**Epson EH-TW5900** → £1,000

★★★★★

The first Full HD 3D projector to break the £1,000 barrier – it launched at £999 – is an astonishing bargain. Setup is easy, and both 2D and 3D pictures impress with their detail levels and motion handling. Budget cinema at its best

**Sony VPL-HW50ES** → £3,000 ★★★★★

Yet another compelling example of Sony's rediscovered obsession with quality, and a model that nobody in the market for a mid-range projector can afford to ignore

**Sony VPL-VW1000ES** → £17,000 ★★★★★

Sony's flagship projector is an absolute triumph, giving film fanatics the chance to upscale their Blu-ray collection to 4K resolution. The start of a new era? We hope so!

**SIM2 Nero 3D-1** → £13,000 ★★★★★

That this isn't SIM2's most expensive model says a lot about the premium projector brand. Yet the DLP-based 3D-1 is still an awe-inspiring beamer, with 3D a particular strength

**JVC DLX-X90** → £9,600 ★★★★★

A step up from the more sensibly priced X70, JVC's range-topper uses only AAA-grade optics and claims an improved contrast. In use, it delivers best-in-class black levels and razor-sharp pics

**Runco LightStyle LS1** → £4,000 ★★★★★

With a price tag not usually seen on Runco PJs, the LS1 is an excellent choice for those who aren't interested in 3D. This 2D-only DLP model offers brilliant HD pics and ISF certification

**Panasonic PT-AT6000E** → £2,900 ★★★★★

Panasonic's newest PJ is undeniably a brilliant performer with 2D, but 3D movies could do with an increase in brightness. Maybe that's why you don't even get any 3D spex bundled in the box...

**Optoma HD33** → £1,300 ★★★★★

A decent budget 3D projector from Optoma, the HD33 offers well-judged picture presets, sharp, clean 2D/3D pics and living room friendly looks. A little noisy in operation

**BenQ W1060** → £700 ★★★★★

More affordable than most 42in TVs, BenQ's latest is a great path into the world of home projection. Black levels aren't great, and the built-in speakers weedy, but at this price why complain?

**SIM2 Lumis 3DS** → £30,000 ★★★★★

For those who want the very best, it's hard to look beyond SIM2's flagship model. Images are simply flawless and its curved body is a work of art. Not cheap, though!

TECH INFO: PROJECTORS



Installation: Although projectors can be temporarily placed on a cupboard, stand or shelf situated at the rear of the room (use the adjustable feet on its base to level the image so that it aligns with the screen), a much better long-term solution is to mount it on your ceiling with an appropriate bracket. Projectors can be quite heavy, though, so it's important to ensure that the bracket is attached firmly – ideally, it should be secured to a joist. Position your PJ so that an imaginary line from its lens to the opposite side of the room hits the screen exactly half-way along its width. The location of your screen should therefore dictate where your projector is. A decent tape-measure or laser pointer will help you to determine the position.

Throw distance: Throw distance specifies the distance between the projector and screen for a focused image of given size. As the vast majority of projectors are equipped with a zoom lens, minimum and maximum throw distances are often specified – say, 3.01m to 6.08m for a 100in. 16:9 image. Shorter throw distances are ideal for smaller rooms, and longer ones for larger rooms. Simple.

Throw ratio: Sometimes, a manufacturer will quote a throw ratio rather than a throw distance. This is basically the throw distance divided by the image width. To get the projected image size, divide the distance between projector and screen by the specified figure. Once again, the inclusion of a zoom lens means that upper and lower figures are usually specified.

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TOP 10 SPEAKERS

All prices are approx
and may have changed**Wharfedale DX-1 HCP** → £400

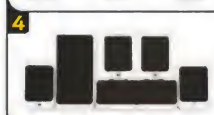
You can spend a fortune on a 5.1 speaker set, but those on tight budgets aren't ignored. Wharfedale's affordable package looks gorgeous and sounds fantastic, with its tight, fast subwoofer underpinning the satellites with ease

**Boston Acoustics A Series** → £2,200 ★★★★★

Boston Acoustics roped in audio guru Ken Ishiwata from sister brand Marantz to finetune this floorstanding range – the result is a mid-range setup that mixes detail and scale

**Bowers & Wilkins MT-60D** → £2,000 ★★★★★

This 5.1 set from B&W sits at the upper end of the sub/sat market, but buyers are rewarded by a potent performance, with the PVID subwoofer dazzling in particular. They look lovely, too

**Q Acoustics Q2000i** → £600 ★★★★★

Another superior sub/sat array from the sonic wizards at Q Acoustics, this marries some surprisingly full-bodied satellite speakers to an easy-to-accommodate 2 x 6in sub

**MartinLogan EM-ESL** → £5,300 ★★★★★

Electrostatic speakers may look odd, but this array from MartinLogan is proof that they can deliver the goods. These create a delicious, seamless soundfield that's worthy of the price

**Jamo D600** → £5,000 ★★★★★

Jamo's THX Ultra2-certified system is ideal if you're building a dedicated cinema rooms – what you miss out on in terms of styling is more than made up for by the ferocious performance

**Acoustic Energy Aegis Neo Max** → £2,000 ★★★★★

Why stop at 5.1 when you can get a 7.1 array for just £2,000? Acoustic Energy's package is an affordable gateway to full-on surround sound. Not the prettiest speakers around, though

**Monitor Audio Gold GX** → £7,150 ★★★★★

More affordable than the flagship Platinum range, this 5.1 Gold system still showcases Monitor Audio's strengths – exquisite-looking floorstanders with a rich, intricate, powerful sound

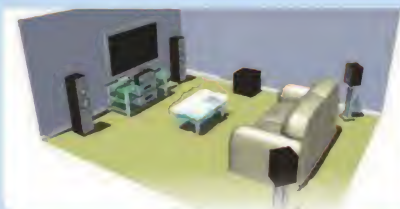
**KEF T205** → £1,500 ★★★★★

KEF's T Series brings high-quality sonics to your living room with the minimum of intrusion – these thin, flatpanel speakers are far more impressive than you might think

**JBL Loft Series 5.1** → £800 ★★★★★

This 5.1 array offers buyers a slice of JBL goodness for the bargain price of £800. The slimline towers may look a bit boxy, but the number of drivers ensures a full-blooded sound

TECH INFO: SPEAKERS



Centre speaker: Handles most of the dialogue and onscreen effects. Should be positioned above or below the screen as close to it as possible. Of course, if you're using a projector screen, it should ideally be placed behind it.

Front speakers: Left and right speakers should be positioned either side of the screen, in line with the centre. Turn the speakers in slightly to face the listener if there isn't an even movement of sound across the front of the room.

Subwoofer: Can be positioned wherever it sounds best or can be tucked out of sight due to the non-directional nature of low-frequency signals. Be aware that close positioning in corners or next to walls can create a boomy effect.

Surrounds: Position alongside the listener, pointing in or slightly behind the ears for a good surround effect. The back wall is not a good position for surrounds – it is, in fact, where you should locate the sixth and seventh speakers (rears) in a traditional 7.1 array.

DEMO DELIGHT

Gladiator: While it's often the low-end oomph of your sub that impresses friends and family, the high-frequency poise of your speakers is equally important, lending authenticity to the copious Foley effects that litter film soundtracks. The Colosseum fight sequence in *Gladiator*, with its clashing swords, is a perfect test for your tweeters

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TOP 10 AV RECEIVERS/AV PROCESSORS/POWER AMPLIFIERS
All prices are approx and may have changed

Onkyo TX-NR5010 → £3,000
★★★★★

The top-of-the-range new Onkyo easily warrants its £3,000 ticket. Its nine-channel power reserves are massive, build-quality is astonishing and the feature list includes the ability to feed four subwoofers and eleven surround channels!


Sony STR-DA5700ES → £2,000
★★★★★

Sony's STR-DA5700ES is unique among AVRs for offering both built-in Ethernet switching (handy) and video-on-demand (also handy). Flexible, good-looking... and it sounds fabulous


Marantz NR1602 → £550
★★★★★

Okay, it's not suited to largescale rooms/speakers, but Marantz's 'slimline' is so forward-thinking it hurts. Easy to install, musical in performance and packed with audio networking talents


Denon AVR-3313 → £1,100
★★★★★

Sonic detailing is the order of the day here, with the Denon crafting soundstages with considerable finesse. Spotify, Denon Link HD and triple HDMI outputs are the feature highlights


Onkyo TX-NR818 → £1,000
★★★★★

This mid-range 2012 offering from Onkyo introduces compatibility with Dolby TrueHD MLP files, and serves up a well-rounded sound backed by hefty power reserves


Yamaha RX-A3010 → £2,000
★★★★★

The true successor to the legendary Z11 (albeit with only nine channels of amplification) is elegantly designed, solidly built and dishes out BD mixes with relish. Not THX-certified, though


Yamaha RX-V473 → £340
★★★★★

Tantalisingly priced, clean-sounding and sporting Apple AirPlay compatibility, the RX-V473 is easily recommended. Get it in its silver finish if possible – it looks awesome


Pioneer SC-2022 → £900
★★★★★

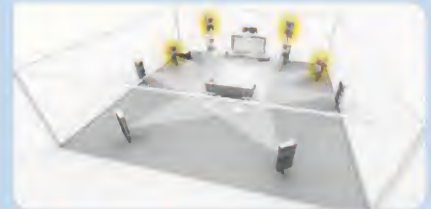
Another Pioneer AVR that dazzles with its slick control features and crystal-clear audio presentation. But at this price you'd expect a second HDMI output


Pioneer VSX-922 → £500
★★★★★

An affordable Pioneer AVR that once again offers ultra-smart control via iOS or Android devices, a clinical sound and plenty of networking features


Audiolab 8200P → £1,250
★★★★★

More of an evolution than revolution, Audiolab's 8200P builds upon the previous 8000AP by adding HDMI v1.4 switching amongst other tweaks. Simple to use. Great to listen to

TECH INFO: AV RECEIVERS


Tackling new heights: You may find your AV receiver offering Dolby Pro-Logic IIz, Audyssey DSX or DTS Neo: X post-processing – possibly all three. All of these can deliver two further Front Height channels, with the aim of adding weight and control to the front soundstage, particularly in terms of lifting the centre channel and adding scale to vertical surround effects – rainfall for example. The catch is that you will need to add two new physical speakers, mounted near your ceiling above the regular left and right channel cabinets, and make use of two of the receiver's channels of amplification, which could mean forgoing a second stereo zone or rear surrounds speakers. Note that the Audyssey and DTS modes also cater for Front Wide speakers (pictured above), but this idea seems to be gaining less traction within the industry.

How much power?: Many of the mass-market AV receiver manufacturers are involved in a specifications race to see who can say their model is the most powerful, which can be confusing for consumers. For instance, both Krell's £7,000 S-1500 seven-channel power amp and Yamaha's £500 RX-V671 both claim 7 x 150W – the important part is that Krell's figure is into an eight-Ohm load with all channels driven, and that Yamaha's is with one channel into a four-Ohm load, which is hardly a real-world situation. The best advice is ignore the numbers game and get a demo of your desired AVR with the same, or similar, speakers that you intend to partner it with.



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TOP 10 SUBWOOFERS

All prices are approx & may have changed

- 
Bowers & Wilkins DB1 → £3,250 ★★★★★
 Featuring a bipolar arrangement of 12in drivers powered by 1,000W of amplification, B&W's stylish flagship sub is a faultless performer, offering both musicality and sheer muscle. Fit to partner the finest of speakers
- 
JL Audio Fathom F212 → £5,900 ★★★★★
 The US brand arrives in the UK in style – this 2 x 12in, 3000W brute not only looks gorgeous, it's capable of a mindblowing performance. Got a big room? Get one of these!
- 
Tannoy TS2.12 → £550 ★★★★★
 The TS2.12 is easily Tannoy's best woofer yet – using a 12in driver (opposite a passive 12in cone) and 500W amp to deliver a rich, warm bass performance. Affordable and good-looking, too
- 
Velodyne SPL-800 Ultra → £1,150 ★★★★★
 Proof that even 'small' subwoofers can offer a brilliant performance. The 8in driver is helped by a 1,200W amp and mic-assisted room EQ. Tight and fast
- 
REL T5 → £450 ★★★★★
 The 8in T5 provides a slice of REL engineering at a surprisingly affordable price. Highlights include the simultaneous speaker-level and LFE inputs and pleasing Class A/B sound
- 
Bowers & Wilkins PVID → £1,200 ★★★★★
 Possibly the coolest-looking subwoofer on the planet, B&W's revamped PV1 uses its DSP trickery to craft an opulent low-end performance. The touch-sensitive OLED display is pure class
- 
Velodyne DD18+ → £5,800 ★★★★★
 If you have a large cinema room then this second-gen 18in beast from Velodyne will appeal. The performance is as brilliant as you'd expect for the price and specification
- 
REL G1 → £3,300 ★★★★★
 A top-of-the range woofer with a price tag to match, buyers of REL's G1 can rest assured they're getting a best-in-breed product. Delivers a warm, rich sound with slam and depth
- 
Q Acoustics 2070Si → £250 ★★★★★
 A cracking value sub with a smart elongated-oblong design that may make it easier to fit in your room. Each of its 6.5in woofers are driven by a 75W amp
- 
Velodyne EQ-Max12 → £800 ★★★★★
 A solid mid-range sub from the bass masters at Velodyne, with a foolproof auto EQ system in addition to a quartet of sound presets. Doesn't exactly ooze design style, though

TECH INFO

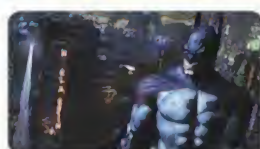


Why use more than one sub?: Using two subwoofers (or perhaps four) should, in theory, bring huge rewards in terms of bass performance. But remember that LFE is a tricky beast to control. Running two subs may simply double problems in your room like room boom and suck-outs, where outgoing and reflected bass sounds cancel each other out. If you have some flexibility in where you place subwoofers, trial and error may well throw up some interesting results. The acoustics wizard Floyd E Toole (his book *Sound Reproduction: The Acoustics and Psychoacoustics of Loudspeakers and Rooms* is fine bedtime reading) suggests one LFE sub to either side of the room may be best for accuracy while placing them in the front corners would be best for overall bass power. Yet there is no hard and fast rule as to what will work best for every room, and you may find that simply using one (large) subwoofer is preferable as it's the easiest to get sounding right.

DEMO DELIGHT

Kung Fu Panda 2: As well as going deep and loud, a good subwoofer needs to be able to stay fast and taut, too. Modern-day 'toons often deliver a good test of this – and none better than *Kung Fu Panda 2* during the attack on the Musician's Village sequence. When Po the eponymous panda bounces into action it should sound both rich and tight, rather than an unruly bellow. The film's not bad either...

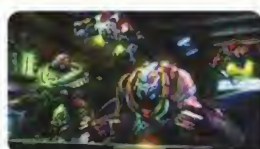
TOP 5 HD GAMES



Batman: Arkham City
 Holy hi-def gaming! Stunning graphics, immersive Dolby Digital 5.1 sonics and an optional 3D mode ensure that the Dark Knight's latest videogame is tailor-made for enjoying in a home cinema environment.
 ★★★★★



Elder Scrolls V: Skyrim
 Abandon all hope (of a life), ye who enter here. This third-person action RPG may not be the most visually impressive game around, but it will devour your every waking hour once started. Consider yourself warned...
 ★★★★★



XCOM: Enemy Unknown
 This sequel to the much-loved PC franchise provides a breath of fresh air to console gamers – a turn-based strategy game majoring on brains as well as brawn, drawn with lavish graphics and evocative audio.
 ★★★★★



Dishonored
 This first-person action-adventure puts you in the body of an assassin in a beautifully crafted steampunk world. Convincing characters and great sound design partnered with involving gameplay. We love it.
 ★★★★★



Tom Clancy's Ghost Recon: Future Soldier
 First-rate HD graphics, neat cinematic flourishes and booming audio make this latest entry in the bullets-'n'-brains franchise feel like taking part in *Black Hawk Down*.
 ★★★★★

TOP 10 MEDIA PLAYERS

All prices are approx and may have changed

- 1 Crystal Acoustics Media Matchbox → £55 ★★★★★**
 Crystal Acoustics' dinky player will happily play nearly everything you throw at it, including MKV, FLAC and BD/DVD ISO files. Pocket-sized and wallet-friendly, it's an essential purchase for those wanting a fuss-free player.
- 2 Xtreamer iXtreamer → £150 ★★★★★**
 Incorporating an iPhone/iPod/iPad dock means the iXtreamer isn't the smallest device around, nor is it cheap – but its feature set justifies the price. Even SATA drives can be plumbed in.
- 3 Western Digital WD TV Live Hub → £200 ★★★★★**
 The WD's built-in 1TB hard drive explains the £200 ticket. This sleek-looking unit incorporates a faultless user interface and smartphone control, making media browsing a breeze.
- 4 A.C. Ryan PlayOn! HD 2 → £150 ★★★★★**
 This 1TB media player counts USB 3.0 for fast file-copying as one of its USPs. It's solidly built, simple to use and ready to tackle a variety of formats, including DVD/BD ISOs.
- 5 Sony SMP-N200 → £70 ★★★★★**
 A bargain-priced box of tricks from Sony, the SMP-N200 offers built-in Wi-Fi, DLNA networking and access to the Sony Entertainment Network, with control via the XrossMediaBar.
- 6 LG SP820 → £180 ★★★★★**
 The second-generation Smart Upgrader from LG adds brains to your 'dumb' telly in the form of apps, Magic Remote control and plenty of VOD. DLNA playback doesn't stretch to FLAC.
- 7 Digital Stream DPS-1000 → £90 ★★★★★**
 Incorporating BBC iPlayer, YouTube and LOVEFILM makes this a sound choice for VOD fans, although the lack of built-in Wi-Fi (and optional dongle costs £20) is unfortunate.
- 8 Eminent EM7285 → £165 ★★★★★**
 Pricey, but heavy on features (including Wi-Fi, eSATA port, SD card slot and built-in BitTorrent client), Eminent's style-starved player also offers 'user-generated' apps that are worth a shift.
- 9 Maxell MMB300 → £150 ★★★★★**
 Using Android 2.3, Maxell's MMB300 offers good web browsing and 'net radio and comes with a DVB-T USB stick 'tuner'. But it holds no truck with DLNA/uPnP.
- 10 Sony NS7 GS7 → £200 ★★★★★**
 Sony's first Google TV product provides a simple way to bring media playback, web browsing and apps to your TV – but is hampered by a clunky remote and lack of must-have content.

TECH INFO: MEDIA PLAYERS



What about my TV?: Many flatscreen TVs from the major brands (Sony, Samsung, Panasonic, LG, Toshiba and Sharp) also incorporate media player functionality, using Ethernet or Wi-Fi to stream from your home network, or from plugged-in USB drives. Most modern Blu-ray players offer this, too. However, file support is rarely as extensive as on dedicated devices from the likes of Western Digital and A.C. Ryan, and our experience shows some are more adept at playback from USB than over a network. Nor (obviously) is a TV or BD player portable. If your media collection extends beyond JPEGs and MP3s into lossless audio rips and esoteric HD video formats, then a standalone player is a good investment.

Storage: You can, if you really want, store all your files on a plethora of USB drives, or on your PC, but it's best to get a NAS (Network Attached Storage) device for simplified sharing of your media across a network with



multiple players, such as one from Netgear's ReadyNAS range (pictured). These dedicated devices often offer RAID array file backup, and are managed via browser software. Storage capacity can be anything from 1TB to 12TB and beyond.

TOP 5 BLU-RAY BOX SETS

**Alien Quadrilogy**

The hi-def transfers of this quartet of sci-fi horrors are exquisite, particularly the second outing, *Aliens*, which benefits from a James Cameron-overseen colour tweak. The bonus goodies are excellent, too.

★★★★★

**Indiana Jones: The Complete Adventures**

Although the *Raiders of the Lost Ark* restoration isn't the best we've seen, this is a box set that no home cinema fan can afford to be without. And *Temple of Doom* is uncut, too!

★★★★★

**Universal Classic Monsters: The Essential Collection**

Bag yourself eight great monster movies given a thorough cleanup by Universal Studios – and marvel at the sheer brilliance of *The Creature from the Black Lagoon* in 3D.

★★★★★

**Band of Brothers: Complete HBO Series**

This Steven Spielberg-produced series grips from start to finish and this box set is proof that TV material is worthy of BD treatment, too. The DTS-HD 5.1 soundtrack rocks.

★★★★★

**The Lord of the Rings Trilogy: Extended Edition**

Peter Jackson's box office-breaking trilogy simply dazzles in HD, and these extended cuts are perfect for Middle Earth maniacs. Watch the movies then savour the 26 hours of extras.

★★★★★

HEROES

O F H O M E C I N E M A

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60 NEW RELEASES

Escape from Sp

Daft and derivative it may be, but this sci-fi flick

Lockout

This fun sci-fi actioner stars Guy Pearce as Snow, a smart-mouthed former government agent accused of a crime he didn't commit. When the inmates onboard an orbital prison escape and take the President's daughter (Maggie Grace) hostage, the authorities have no choice but to send Snow in to get her out alive.

In other words, it's *Escape from New York*, only set on a space station. Which is no bad thing, because not only is it a fun little film, but its very existence should finally lift off any lingering claims for a straight remake of John Carpenter's 1981 flick that still exist.

Picture: Videophiles will have very little to complain about when they run *Lockout* through their home cinemas. While it's not quite at the top of 1080p encodes, the Blu-ray's AVC 240p

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HOME CINEMA Choice PRESENTS

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AVENGERS

The story behind the Summer's biggest movie...
■ In-depth Blu-ray review ■ Interview with director Joss Whedon
■ Collecting the Marvel films

3D Blu-ray
Got a 3DTV? Then get
these killer movies! p38

Top 10 TVs
The best bigscreen TVs
reviewed and rated p118

Xmas wishlist
The new discs you'll want
in your stocking! p7

**HI-DEF GAME
ROUNDUP, p16**

**WIN A
LOEWE
SMART TV
WORTH OVER
£2K**

es cinema choice

...d-af picture and sound? It's elementary my dear reader...

Audio: Given its gun-toting, fist-flying tale on Sherlock Holmes, it hardly comes as a shock to discover that *A Game of Shadows*' soundtrack packs a hell of a wallop. Subtlety and restraint were clearly not the order of the day when it came to mixing the audio – the sound designers have cranked a breathless and energetic DTS-HD MA 5.1 soundscape that gives real weight to the film's flashy visuals. Chapter 9 and 10's forest chase is demo-worthy material.

Extras: The main extra to be found on Warner's Triple Play release is a Maximum Movie Mode picture-in-picture track hosted by a rapport Robert Downey Jr. While frequently very amusing, it's not the most insightful account of the film's production, so help is on hand with the inclusion of additional behind-the-scenes footage and storyboards. The Maximum Movie Mode also provides links to seven Focus Point features at – during the film, although they are – separately via the disc's



VERDICT

Sherlock Holmes: A Game of Shadows – Triple Play Warner Home Video – All-region BD/R2 DVD – £25 Approx

Verdict: A stunning AV package for this entertaining sequel

Picture: A, Sound: A, Extras: A, Value: B, Overall: A

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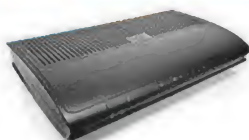
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Top 5 PVRs

**Virgin Media TiVo, £subscription**

This triple-tuner PVR offers ultimate recording flexibility, useful features – you can undelete deleted shows! – and awesome TiVo functionality. A no brainer if you're in a cable area

★★★★★

**Sky+HD, £subscription**

Sky's channel choice is second-to-none and its twin tuner 1TB PVR is a perfect partner. The recent EPG tweak is welcome and Anytime (the push VOD service) is brilliant for catching up on new movies

★★★★★

**Panasonic DMR-HW220, £250**

Panasonic's PVR mixes a 1TB hard drive with its Smart Viera functionality and media streaming – so at £250 it's an absolute steal, regardless of the uninspired design

★★★★★

**Humax DTR-T1000, £300**

The first ever YouView product was worth the lengthy wait – this is a fine example of how to integrate broadcast telly and IPTV. We can't wait for a larger 1TB version, with built-in Wi-Fi, to surface

★★★★★

**Echostar HDT-610R, £260**

While its IPTV talents need improving, the world's thinnest PVR – dubbed Ultra Slim Box by Echostar – performs solidly, offers a 500GB HDD, and can be installed practically anywhere in the house

★★★★★

Top 5 SOUNDBARS

**Yamaha YSP-2200, £800**

Launched back in 2011, but still part of the Yamaha lineup, this premium-priced 'Digital Sound Projector' offers very effective virtual surround, a separate 100W subwoofer and 3-in, 1-out HDMI switching

★★★★★

**Boston Acoustics TVee M30, £450**

Build quality is the order of the day here – Boston's 'bar/sub combi' (designed for screens 40in and up) is beautifully designed and constructed. The wireless sub simplifies installation

★★★★★

**Orbitsound T12v3, £300**

Another great-sounding 'bar' from Orbitsound – this third-gen model features an improved subwoofer and internal components. 'Spatial stereo' processing widens your flatpanel's sound considerably

★★★★★

**LG HLX-56S, £800**

Wi-Fi-enabled, DLNA-certified and packing an iPod dock and 3D-capable Blu-ray player, this is certainly the soundbar for those who want everything. It's neatly styled, solidly built, and provides crisp, spacious sonics

★★★★★

**Roth Audio Sub Zero, £150**

This well-constructed soundbar eschews a dedicated sub (hence the name) in favour of a brace of 'ultra bass' drivers alongside six other speakers. Sound quality is expansive, with a tight low-end and impressive volume

★★★★★

Top 5 SYSTEMS

**Panasonic SC-BTT590, £630**

The use of new bamboo/charcoal drivers and noise-shaping tech pays dividends here, with a classy sound quality to match the wealth of features (3D BD, Smart TV and more)

★★★★★

**Samsung HT-E6750W, £1,000**

Samsung's pricey tallboy system uses a vacuum tube pre-amp to sweeten up its sound and offers virtual 7.1 from its five speakers courtesy of vertical-firing drivers. The feature count is extensive

★★★★★

**Harman Kardon BDS470, £650**

Harman's 2.1 system eschews 'net TV and streaming features but majors in heavyweight build quality and solid AV performance. We tested a 2.1 iteration – 5.1 is also available

★★★★★

**LG BH8220B, £650**

With its silver finish, this is a suitable one-box system to partner with LG's flatscreen TVs, with a commendable, if slightly lacking in HF finesse, sound. Additional features including CD-ripping to USB. Handy

★★★★★

**Panasonic SC-HTB550, £400**

This slimline 2.1 system can be clicked together to make a soundbar if you wish, but in its traditional form it makes for a neat stereo solution – and the wireless sub packs a hefty punch

★★★★★

HOME CINEMA

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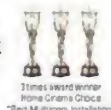
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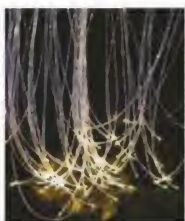
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POINT OF VIEW

Looking forward to the rest of 2013, **Richard Stevenson** announces that he'll be taking his home cinema to new heights – and encourages everyone else to do the same

AS A CONSUMER of all things home cinema, you don't need a crystal ball to predict that 2013 will be a fine year. The big AV manufacturers will continue to innovate, bringing high technology to ever more affordable kit, while a raft of excellent movie releases on Blu-ray, such as *The Hobbit: An Unexpected Journey* and *Star Trek Into Darkness*, have raised excitement levels already: for my home cinema premiere of Peter Jackson's return to Middle-earth I've got the Gandalf costume waiting in the wardrobe.

Even if epic fantasy and SF movies aren't your thing, you can be sure that film content in general will become cheaper and easier to access. Services like Netflix and LOVEFiLM have massively reduced the cost of enjoying movies at home, and new kids on the block like Sky's Now TV are continuing that trend. An evening of Full HD entertainment is now cheaper per movie than a crumbly analogue SD film on VHS was to rent back in the day. You don't have to walk back to the shop only to realise you have forgotten to put the tape back in the case either.

Audio explosion

What of technology, though? Well, while 4K video displays, networked content and AVRs with built-in Ethernet switches should grab the headlines, what really gets my juices flowing is the true expansion of movie soundtracks outside of standard 5.1- or 7.1-channel mixes.

While Yamaha's Z11 amplifier showed us a simulacrum of 11-channel surround sound half a decade ago, DTS Neo:X is putting 11 channels in the hands of the filmmakers and engineers producing content for the home. Unlike Dolby Height or additional DSX channels, Lionsgate has already embedded optimised 11.1-channel Neo:X

sound in *The Expendables 2* and I expect more titles to follow. With a suitably equipped AVR, the effect is absolutely stunning. Dedicated height and width channels are cleverly matrix-encoded into the 7.1-channel mix and sound very much like discrete channels when played back.

So in 2013 I intend to heartily evangelise 11.1-channel surround sound. I shall salute the manufacturers, content producers and home cinema enthusiasts that embrace hendecagonal sound and I shall poo-poo anything sporting lesser numbers of channels. AVRs that can handle the format will be top of my recommended list and loudspeaker makers will be encouraged to establish 11.1-channel home cinema packages. That might be a tall order, given that most brands don't even offer 7.1 packages, but we can but try. Most of all I would encourage all *HCC* readers to begin on an 11.1-channel path and, at the very least, upgrade their systems to include height speakers.

It's not looking all roses for home cinema in 2013, of course. With our reduced spending power comes contraction in the market and the potential for borderline brands to fall off their perch altogether. There are battles to fight on the content side, too. I have noticed a growing number of movie releases sporting compressed soundtracks, to make soft effects louder and give the impression of a more robust overall sound. This makes dialogue more intelligible on TVs, but kills the dynamics when played on a serious AV system.

The hi-fi industry and its proponents have been battling compression on music recordings for years and I think 2013 is the year that the home cinema industry needs to join in the fight ■

What are you looking forward to in 2013? – Let us know by emailing letters@homecinemachoice.com

Richard Stevenson and his King Kong suit are available to hire for weddings, birthdays and Bat-Mitzvahs. He can be paid in peanuts



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